California Environmental Protection Agency

O Air Resources Board

THE CALIFORNIA CONSUMER PRODUCTS REGULATIONS



Publication: November 2010.

Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 1, <u>Antiperspirants and Deodorants</u>, Sections 94500-94506.5.

Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94507-94517.

Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 3, <u>Aerosol Coating Products</u>, Sections 94520-94528. Title 17, California Code of Regulations, Article 1, Tables of Maximum Incremental Reactivity Values, Sections 94700-94701.

Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 4, <u>Alternative Control Plan</u>, Section 94540-94555.

Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 5, <u>Hairspray Credit Program</u>, Sections 94560-94575.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY AIR RESOURCES BOARD

THE CALIFORNIA CONSUMER PRODUCTS REGULATIONS

NOTE: This compilation includes the Air Resources Board's (ARB) five consumer products regulations as of November 2010. These regulations are: the Regulation for Reducing Volatile Organic Compound Emissions from Antiperspirants and Deodorants (Antiperspirants and Deodorants Regulation); the Regulation for Reducing Volatile Organic Compound Emissions from Consumer Products (Consumer Products Regulation); the Regulation for Reducing Volatile Organic Compound Emissions from Aerosol Coating Products (Aerosol Coating Products Regulation); the Alternative Control Plan Regulation for Consumer Products and Aerosol Coating Products (Alternative Control Plan Regulation); and, the Consumer Products' Hairspray Credit Program Regulation).

The **Antiperspirants and Deodorants Regulation** sets volatile organic compound (VOC) limits for antiperspirant and deodorant products. This regulation was originally approved by the ARB on November 8, 1989, and became legally effective on February 27, 1991. Amendments to the regulation have also been adopted by the ARB. These amendments became legally effective on October 21, 1991; January 6, 1993; February 29, 1996; November 18, and 21, 1997; June 24, 1999; June 6, 2001, and July 20, 2005.

The **Consumer Products Regulation** was approved originally by the ARB, on October 11, 1990, and became legally effective on October 21, 1991. The regulation sets VOC limits for regulated categories of consumer products. Amendments to the regulation have been made and adopted by the ARB on January 1992 (effective 1993); September 1995 (effective 1996); November 1996 (effective 1997); July 1997 (effective 1998); November 1998 (effective 1999); October 1999 (effective 2000); May 2000 (effective 2001); June 2000 (effective 2001); June 2004 (effective 2005); November 2006 (effective 2007); June 2008 (effective 2009); and on September 2009 (effective October 20, 2010).

The **Aerosol Coating Products Regulation** sets VOC limits for 36 categories of aerosol coating products. This regulation was originally adopted by the ARB on March 23, 1995 and became legally effective on January 8, 1996. Amendments to the regulation were adopted by the ARB and became legally effective on June 24, 1999. On June 22, 2000, new amendments and the addition of the proposed Tables of Maximum Incremental Reactivity (MIR) Values were adopted, and became legally effective on July 18, 2001. Recent amendments made at a November 3, 2009 Hearing, became legally effective on October 2, 2010.

The **Alternative Control Plan Regulation** is a voluntary, market-based regulation which provides an alternative way to comply with the VOC limits in the Consumer Products and Aerosol Coating Products Regulations. This regulation was originally

approved by the ARB on September 22, 1994, and became legally effective on September 9, 1995. Amendments to the regulation were made and became legally effective on January 8, 1996.

The Consumer Products' **Hairspray Credit Program Regulation** was approved by the ARB on November 13, 1997, and became legally effective on August 24, 1998.

Table of Contents

REGULATION FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM ANTIPERSPIRANTS AND DEODORANTS

94500	Applicability	2
94501	Definitions	2
94502	Standards for Antiperspirants and Deodorants	4
94503	Exemptions	10
94503.5	Innovative Products.	10
94504	Administrative Requirements	13
94505	Variances	14
94506	Test Methods	15
94506.5	Federal Enforceability.	17
94507	REGULATION FOR REDUCING EMISSIONS FROM CONSUMER PRODUCTS	20
94507	Applicability Definitions	
94509	Standards for Consumer Products	
94510	Exemptions.	
94511	Innovative Products.	76
94512	Administrative Requirements	78
94513	Reporting Requirements	83
94514	Variances	88
94515	Test Methods	90
94516	Severability	94
94517	Federal Enforceability.	94

REGULATION FOR REDUCING THE OZONE FORMED FROM AEROSOL COATING PRODUCT EMISSIONS

94520	Applicability	97
94521	Definitions	97
94522	Limits and Requirements for Aerosol Coating Products	106
94523	Exemptions	114
94524	Administrative Requirements	115
94525	Variances	120
94526	Test Methods	122
94527	Severability	126
94528	Federal Enforceability.	126
	FINAL REGULATION ORDER TABLES OF MAXIMUM INCREMENTAL REACTIVITY (MIR) VALUES	
94700	MIR Values for Compounds	127
94701	MIR Values for Hydrocarbon Solvents	155
	ALTERNATIVE CONTROL PLAN REGULATION FOR CONSUMER PRODUCTS AND AEROSOL COATING PRODUCTS	
94540	Purpose	157
94541	Applicability	157
94542	Definitions	157
94543	Requirements and Process for Approval of an ACP	166
94544	ACP Approval Timeframes	170
94545	Recordkeeping and Availability of Requested Information	171
94546	Violations	172
94547	Surplus Reductions and Surplus Trading	175
94548	Reconciliation of Shortfalls	179
94549	Notification of Modifications to an ACP by the	
	Responsible ACP Party	179
94550	Modification of an ACP by the Executive Officer	180

94551	Cancellation of an ACP	181
94552	Treatment of Information	182
94553	Other Applicable Requirements	183
94554	Federal Enforceability	185
94555	Federal Clean Air Act Requirements	185
	HAIRSPRAY CREDIT PROGRAM REGULATION	
94560	Purpose	187
94561	Applicability	187
94562	Definitions	188
94563	Application Process to Request Hairspray Emission	
	Reduction Credits	190
94564	Protocol for Calculating Hairspray Emission Reduction Credits	194
94565	Issuance of Hairspray Emission Reduction Credits	196
94566	HERC Account Registry	197
94567	Allowable Uses of Hairspray Emission Reduction Credits	198
94568	Application Process for Use of Hairspray Emission	
	Reduction Credits	199
94569	Protocol for Calculation of Excess Emissions During a Delayed	
	Compliance Period	203
94570	Approval of Application for Use of Hairspray	
	Emission Reduction	204
94571	Modification and Reconciliation of Account	
	Balance for HERC Use	205
94572	Recordkeeping and Availability of Requested Information	206
94573	Violations	206
94574	Federal Enforceability	209
94575	Program Evaluation	210

REGULATION FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM ANTIPERSPIRANTS AND DEODORANTS

Final Regulation Order REGULATION FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM ANTIPERSPIRANTS AND DEODORANTS

SUBCHAPTER 8.5. CONSUMER PRODUCTS

Article 1. Antiperspirants and Deodorants

94500. Applicability.

Except as provided in Section 94503, this article shall apply to any person who sells, supplies, offers for sale, or manufactures antiperspirants or deodorants for use in the state of California.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.

94501. Definitions.

For the purpose of this article, the following definitions apply:

- (a) "Aerosol Product" means a pressurized spray system that dispenses antiperspirant or deodorant ingredients.
- (b) "Antiperspirant" means any product including, but not limited to, aerosols, rollons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.
- (c) "Colorant" means any substance or mixture of substances, the primary purpose of which is to color or modify the color of something else.
- (d) "Deodorant" means:
 - for products manufactured before January 1, 2006: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to minimize odor in the human axilla by retarding the growth of bacteria which cause the decomposition of perspiration.
 - for products manufactured on or after January 1, 2006: any product including, but not limited to, aerosol, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that the product can be used on or applied to the human axilla to provide a scent and/or minimize odor.

- (e) "Executive Officer" means the Executive Officer of the Air Resources Board, or his or her delegate.
- (f) "Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of 2 mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.
- (g) "High Volatility Organic Compound (HVOC)" means any organic compound that exerts a vapor pressure greater than 80 millimeters of Mercury (mm Hg) when measured at 20°C.
- (h) "Manufacturer" means any person who imports, manufacturers, assembles, produces, packages, repackages, or relabels an antiperspirant or deodorant.
- (i) "Medium Volatility Organic Compound (MVOC)" means any organic compound that exerts a vapor pressure greater than 2 mm Hg and less than or equal to 80 mm Hg when measured at 20°C.
- (j) "Non-aerosol Product" means any antiperspirant or deodorant that is not dispensed by a pressurized spray system.
- (k) "Roll-on Product" means any antiperspirant or deodorant that dispenses active ingredients by rolling a wetted ball or wetted cylinder on the affected area.
- (I) "Stick Product" means any antiperspirant or deodorant that contains active ingredients in a solid matrix form, and that dispenses the active ingredients by frictional action on the affected area.
- (m) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
 - (1) methane, methylene chloride (dichloromethane), 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), chlorodifluoromethane (HCFC-22), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1-dichloro-1-fluoroethane (HCFC-141b),

1-chloro-1,1-difluoroethane (HCFC-142b),
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
trifluoromethane (HFC-23),
1,1,2,2-tetrafluoroethane (HFC-134),
1,1,1,2-tetrafluoroethane (HFC-134a),
pentafluoroethane (HFC-125),
1,1,1-trifluoroethane (HFC-143a),
1,1-difluoroethane (HFC-152a),
cyclic, branched, or linear completely methylated siloxanes,
the following classes of perfluorocarbons:

- (A) cyclic, branched, or linear, completely fluorinated alkanes;
- (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations:
- (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and
- the following low-reactive organic compounds which have been exempted by the U.S. EPA: acetone, ethane, methyl acetate parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94502. Standards for Antiperspirants and Deodorants.

(a) Except as provided in Sections 94503 (Exemptions), 94503.5 (Innovative Products), 94505 (Variances) and 94567(a)(1)

person shall sell, supply, offer for sale, or manufacture for sale in California any antiperspirant or deodorant which, at the time of sale or manufacture, contains volatile organic compounds in excess of the limits specified in the following Tables of Standards, after the specified effective date, or after any date that has been specified by the Executive Officer pursuant to subsections (d)(2) or (d)(5):

(1) The following Table of Standards applies to products manufactured before January 1, 2001.

Table of Standards For products manufactured before January 1, 2001 (percent volatile organic compounds by weight)

1/1/95

12/31/92

Effective Dates

1/1/99

1/1/97

			., ., .,		., ., .		., ., .,	
	HVOC ^a	MVOCb	HVOC ^a	MVOCb	HVOC ^a	MVOCp	HVOC ^a	MVOC _p
Aerosol								
Products in								
Compliance								
Plan ^c								
Antiperspirants	60	20			40	10	0	10
Deodorants	20	20			14	10	0	10
All Other								
Aerosol								
Products								
Antiperspirants	60	20	0	10				
Deodorants	20	20	0	10				
Non-Aerosol	0	0	0	0				

- ^a High volatility organic compounds, i.e., any organic compound that exerts a vapor pressure greater than 80 mm Hg when measured at 20 C.
- Medium volatility organic compounds, i.e., any organic compound that exerts a vapor pressure greater than 2 mm Hg and less than or equal to 80 mm Hg when measured at 20 C.
- These standards apply to aerosol products manufactured by companies that have submitted a compliance plan pursuant to Section 94502(d), which has been approved by the Executive Officer.
- (2) The following Table of Standards applies to products manufactured beginning January 1, 2001.

Products

Table of Standards For products manufactured beginning January 1, 2001 (percent volatile organic compounds by weight)

Effective Dates

1/1/01						
HVOC ^a MVOC ^b						

Aerosol		
Products		
Antiperspirants	40	10
Deodorants	0	10
Non-Aerosol	0	0
Products		

- High volatility organic compounds, i.e., any organic compound that exerts a vapor pressure greater than 80 mm Hg when measured at 20 C.
- Medium volatility organic compounds, i.e., any organic compound that exerts a vapor pressure greater than 2 mm Hg and less than or equal to 80 mm Hg when measured at 20 C.
- (b) No person shall sell, supply, offer for sale, or manufacture for sale in California any antiperspirant or deodorant which contains any of the following ozone-depleting compounds: CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane),
 - CFC-113 (1,1,2-trichloro-1,2,2-trifluoroethane),
 - CFC-114 (1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane),
 - CFC-115 (chloropentafluoroethane), halon 1211 (bromochlorodifluoromethane), halon 1301 (bromotrifluoromethane), halon 2404 (dibromotetrafluoroethane),

HCFC-22 (chlorodifluoromethane), HCFC-123

- (2,2-dichloro-1,1,1-trifluoroethane), HCFC-124
- (2-chloro-1,1,1,2-tetrafluoroethane), HCFC-141b (1,1-dichloro-1-fluoroethane), HCFC-142b (1-chloro-1,1-difluoroethane), 1,1,1-trichloroethane, and carbon tetrachloride.
- (c) No person shall sell, supply, offer for sale, or manufacture for sale in California any antiperspirant or deodorant which contains any compound that has been identified by the ARB in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 7, Section 93000 as a toxic air contaminant.
- (d) Special Requirements for Aerosol Manufacturers. This subsection (d) applies only to aerosol antiperspirant and deodorant products manufactured before January 1, 1999.

- (1) A manufacturer of aerosol products may submit to the Executive Officer a compliance plan which describes how the manufacturer will achieve compliance with the requirements of Section 94502(a) for aerosol products.
- (2) For each aerosol manufacturer who submits a compliance plan pursuant to subsection (d)(1), the Executive Officer shall suspend the 1/1/1995 requirements of section 94502(a) for aerosol products until a date on or before January 1, 1999, if the compliance plan demonstrates to the Executive Officer's satisfaction that the manufacturer is making good faith efforts, either independently or as part of a cooperative effort with other manufacturers, to develop aerosol products that will comply with the requirements of section 94502(a) in accordance with a schedule which is reasonably likely to enable the manufacturer to produce an acceptable aerosol product which complies with these requirements by a date on or before January 1, 1999. Before reaching a decision to suspend the requirements of Section 94502(a), the Executive Officer may request an aerosol manufacturer to modify the compliance plan to include additional information.
- (3) In order to qualify for a suspension under subsection (d)(2), the compliance plan submitted by the manufacturer must contain all of the following:
 - (A) A compliance schedule setting forth the sequence and respective dates for all key events in the process of developing aerosol products complying with the requirements of Section 94502(a).
 - (B) A commitment by each manufacturer which specifies that:
 - 1. No later than January 1, 1997, the manufacturer will complete reformulation of aerosol antiperspirant and deodorant products to meet the 1/1/1997 standards specified in Section 94502(a) for aerosol products in a compliance plan.
 - 2. No later than January 1, 1997 the manufacturer will cease manufacturing products for use in California that do not comply with the 1/1/1997 standards specified in Section 94502(a) for aerosol products in a compliance plan.
 - 3. No later than January 1, 2000 the manufacturer will cease to sell, supply, or offer for sale of all products manufactured prior to January 1, 1997 that do not comply with the 1/1/1997 standards specified in Section 94502(a) for aerosol products in a compliance plan.
- (C) For each manufacturer, technical detail and information on the progress each manufacturer has made and the effort each plans to make to comply

with both the 1/1/1997 and 1/1/1999 HVOC standards specified in Section 94502(a) for aerosol products in a compliance plan, including individual company timetables with "milestones" or increments of progress which allow progress to be measured. The technical information shall be sufficiently detailed to allow individual manufacturer's compliance efforts to be monitored including, at a minimum, the following information:

1. Documentation of past, planned and ongoing research to meet the 1/1/1997 HVOC standards. Documentation will include data to support whether the 1/1/1997 standards represent the lowest achievable HVOC content, by whatever method or technology is chosen by the manufacturer. If hydrofluorocarbon-152a ("HFC-152a") is a part of the technology to be used by the manufacturer, the information shall include. at a minimum: the manufacturer's current HFC-152a allocation for any use; the supply of HFC-152a to meet the manufacturer's needs for the aerosol antiperspirant and deodorant market; an indication as to whether the amount specified is needed to cover national or California sales; manufacturer's efforts to date to receive necessary allocations; time-frame to receive allocations; the actual path to compliance, including information on the types of formulations to be tested, formulation data, prototype testing, toxicity and stability tests, packaging and valve testing, safety and efficacy testing, consumer market testing and consumer acceptance, management decision for go-ahead, large-scale production, and availability to consumer; critical path identification; the expected date of aerosol antiperspirant and deodorant production that meets the 1/1/1997 standards; and a back-up plan that describes the manufacturer's actions should HFC-152a not be available in sufficient quantities.

If a compliance method or technology other than the use of HFC-152a is chosen, the information will include at a minimum: actual path to compliance, including information on the types of formulations to be tested, formulation data, prototype testing, toxicity and stability tests, packaging and valve testing, safety and efficacy testing, consumer market testing and consumer acceptance, management decision for go-ahead, large-scale production, and availability to consumer; critical path identification; expected date to produce aerosol antiperspirants and deodorants that meet the 1/1/1997 HVOC standards; and a back-up plan describing the manufacturer's actions should the chosen compliance method or technology not succeed.

2. A description of past, ongoing, and planned research efforts to achieve the 1/1/1999 HVOC standards. The information required will be the same as for the 1/1/1997 HVOC standards, as described in Section 94502(d)(3)(C) above. This information will also include a detailed description of the pursued technologies, current status of this technology, and the feasibility of attaining the 1/1/1999 standards. The documentation

will outline key events and a timetable in the development of products to meet the 1/1/1999 HVOC standards and alternative plans if the technology does not develop as expected.

- 3. A list of products which each individual manufacturer will be producing under this compliance plan.
- (4) A manufacturer who has received a suspension pursuant to subsection (d)(2) shall submit annual updates to the compliance plan to the Executive Officer on January 1, 1995, January 1, 1996, January 1, 1997, January 1, 1998, and January 1, 1999. These updates shall describe any changes or revisions that should be made to the compliance plan, based on any changed circumstances that have occurred since the submittal of the compliance plan or the last update. A manufacturer who has received a suspension pursuant to subsection (d)(2) shall also notify the Executive Officer in writing within 10 days after the failure of the manufacturer to meet any increment of progress specified in the compliance plan, or in any annual update to the compliance plan, and the likely effect of that failure on the ability of the manufacturer to comply with Section 94502(a) by the date specified by the Executive Officer pursuant to subsection (d)(2).
- (5) Within 120 days after each compliance plan update is due, or within 120 days after notification by a manufacturer pursuant to subsection (d)(4), the Executive Officer shall determine whether the manufacturer is continuing to make good faith efforts to develop aerosol products that will comply with the requirements of section 94502(a) in accordance with a schedule which is reasonably likely to enable the manufacturer to produce an acceptable aerosol product which complies with these requirements. If the Executive Officer determines that the manufacturer is not making such good faith efforts, the Executive Officer shall withdraw the suspension effective immediately after upon written notification of the withdrawal to the manufacturer. Any antiperspirant or deodorant product manufactured prior to the date on which the manufacturer is notified that the suspension is withdrawn may be sold, supplied, or offered for sale up to three years after the effective date of the suspension withdrawal.
- (6) A manufacturer may request a public hearing to review any decision made by the Executive Officer pursuant to subsections (d)(2) and (d)(5). The hearing shall be held in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with Section 60040).
- (e) Notwithstanding the provisions of Section 94502(a), an antiperspirant or deodorant product manufactured prior to each of the effective dates specified for that product in the Table of Standards may be sold, supplied, or offered for sale up to three years after each of the specified effective

dates. In addition, an aerosol antiperspirant or deodorant product manufactured prior to any compliance date specified by the Executive Officer pursuant to Section 94502(d)(2) may be sold supplied, or offered for sale up to three years after the specified compliance date. This subsection (e) does not apply to any antiperspirant or deodorant product which does not display on the product container or package the date on which the product was manufactured, or a code indicating such date.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94503. Exemptions.

- (a) This article shall not apply to any person who manufactures antiperspirants or deodorants in California for shipment and use outside of California.
- (b) The requirements of Section 94502(a) shall not apply to fragrances and colorants up to a combined level of 2 percent by weight contained in any antiperspirant or deodorant.
- (c) The requirements of Section 94502(a) shall not apply to those volatile organic compounds that contain more than 10 carbon atoms per molecule and for which the vapor pressure is unknown, or that have a vapor pressure of 2 mm Hg or less at 20°C.
- (d) The medium volatility organic compound (MVOC) content standards specified in Section 94502 (a), shall not apply to ethanol.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94503.5 Innovative Products.

- (a) The Executive Officer shall exempt an antiperspirant or deodorant product from the requirements of Section 94502(a) if a manufacturer demonstrates by clear and convincing evidence that, due to some characteristic of the product formulation, design, delivery systems or other factors, the use of the product will result in less VOC emissions as compared to:
 - (1) the VOC emissions from a representative antiperspirant or deodorant product which complies with the VOC standards specified in Section 94502(a), or
 - (2) the calculated VOC emissions from a noncomplying representative product, if the product had been reformulated to comply with the VOC standards specified in Section 94502(a). VOC emissions shall be calculated using the following equation:

 $E_R = E_{NC} \times VOC_{STD} \div VOC_{NC}$

Where:

E_R = The VOC emissions from the noncomplying representative product, had it been reformulated.

E_{NC} = The VOC emissions from the noncomplying representative product in its current formulation.

VOC_{STD} = The VOC standard specified in 94502(a).

VOC_{NC} = The VOC content of the noncomplying product in its current formulation.

If a manufacturer demonstrates that this equation yields inaccurate results due to some characteristic of the product formulation or other factors, an alternative method which accurately calculates emissions may be used upon approval of the Executive Officer.

- (b) For the purposes of this section, "representative antiperspirant or deodorant product" means an antiperspirant or deodorant product which meets all of the following criteria:
 - (1) the representative product shall be subject to the same VOC limit in Section 94502(a) as the innovative product,
 - (2) the representative product shall be of the same product form as the innovative product, unless the innovative product uses a new form which does not exist in the product category at the time the application is made.
 - (3) the representative product shall have at least similar efficacy as other consumer products in the same product category based on tests generally accepted for that product category by the consumer products industry.
- (c) A manufacturer shall apply in writing to the Executive Officer for any exemption claimed under subsection (a). The application shall include the supporting documentation that demonstrates the emissions from the innovative product, including the actual physical test methods used to generate the data and, if necessary, the consumer testing undertaken to document product usage. In addition, the applicant must provide any information necessary to enable the Executive Officer to establish enforceable conditions for granting the exemption including the VOC content for the innovative product and test methods for determining the VOC content. All information submitted by a manufacturer pursuant to this section shall be handled in accordance with the procedures specified in Title 17, California Code of Regulation, Sections 91000-91022.

- (d) Within 30 days of receipt of the exemption application the Executive Officer shall determine whether an application is complete as provided in Section 60030(a), Title 17, California Code of Regulations.
- (e) Within 90 days after an application has been deemed complete, the Executive Officer shall determine whether, under what conditions, and to what extent, an exemption from the requirements of Section 94502(a) will be permitted. The applicant and the Executive Officer may mutually agree to a longer time period for reaching a decision and additional supporting documentation may be submitted by the applicant before a decision has been reached. The Executive Officer shall notify the applicant of the decision in writing and specify such terms and conditions that are necessary to insure that emissions from the product will meet the emissions reductions specified in subsection (a), and that such emissions reductions can be enforced.
- (f) In granting an exemption for a product the Executive Officer shall establish conditions that are enforceable. These conditions shall include the VOC content of the innovative product, dispensing rates, application rates and any other parameters determined by the Executive Officer to be necessary. The Executive Officer shall also specify the test methods for determining conformance to the conditions established. The test methods shall include criteria for reproducibility, accuracy, and sampling and laboratory procedures.
- (g) For any product for which an exemption has been granted pursuant to this section, the manufacturer shall notify the Executive Officer in writing within 30 days of any change in the product formulation or recommended product usage directions, and shall also notify the Executive Officer within 30 days if the manufacturer learns of any information which would alter the emissions estimates submitted to the Executive Officer in support of the exemption application.
- (h) If VOC standards are lowered for a product category through any subsequent rulemaking, all innovative product exemptions granted for products in the product category, except as provided in this subsection (h), shall have no force and effect as of the effective date of the modified VOC standard. This subsection (h) shall not apply to those innovative products which have VOC emissions less than the appropriate lowered VOC standard and for which a written notification of the product's emissions status versus the lowered VOC standard has been submitted to and approved by the Executive Officer at least 60 days before the effective date of such standard.
- (i) If the Executive Officer believes that an antiperspirant or deodorant product for which an exemption has been granted no longer meets the criteria for an innovative product specified in subsection (a), the Executive Officer may modify or revoke the exemption as necessary to assure that the product will meet these

criteria. The Executive Officer shall not modify or revoke an exemption without first affording the applicant an opportunity for a public hearing held in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with Section 60040), to determine if the exemption should be modified or revoked.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94504. Administrative Requirements.

(a) Labeling.

- (1) No later than three months after the effective date of this article, each manufacturer of an antiperspirant or deodorant subject to this article shall clearly display on each container of antiperspirant or deodorant, the date on which the product was manufactured, or a code indicating such date. If a manufacturer uses a code indicating the date of manufacture, an explanation of the code must be filed with the Executive Officer in advance of the code's use by the manufacturer.
- (2) Location of Labeling Information: The date or date-code information required by subsection (a)(1) shall be located in the container so that it is readily observable without disassembling any part of the container or packaging.
- (3) Defacing of Containers: No person shall erase, alter, deface or otherwise remove or make illegible any date or date-code from any regulated product container without the express authorization of the manufacturer.

(b) Reporting.

- (1) Upon 90 days written notice each manufacturer subject to this article shall submit to the Executive Officer the following information:
 - (A) the brand name for each antiperspirant or deodorant product;
 - (B) the owner of the trademark or brand name;
 - (C) the product forms (aerosol, pump, liquid, solid, etc.);
 - (D) the California annual sales in pounds per year and the method used to calculate California annual sales;
 - (E) the total VOC (as defined in Section 94501(m)) content in percent by weight which: (a) has a vapor pressure of 2.0 mm Hg or less at 200 C, or (b) consists of more than 10 carbon atoms, if the vapor pressure is

unknown;

- (F) the total HVOC and MVOC content and type (as defined in Section 94502(a)) in percent by weight;
- (G) the percent by weight of VOC, water, solids, propellant, and any compounds that are exempt from the definition of VOC specified in section 94501;
- (H) any additional information necessary to determine volatile organic compound emissions from any antiperspirant or deodorant products.
- (2) All information submitted by manufacturers pursuant to Section 94504(b) shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022.

Note: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94505. Variances.

- (a) Any person who cannot comply with the requirements set forth in Section 94502, because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:
 - (1) the specific grounds upon which the variance is sought;
 - (2) the proposed date(s) by which compliance with the provisions of Section 94502 will be achieved, and
 - (3) a compliance report reasonably detailing the method(s) by which compliance will be achieved.
- (b) Upon receipt of a variance application containing the information required in subsection (a), the Executive Officer shall hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in Section 94502 is necessary and will be permitted. A hearing shall be initiated no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to every person who requests such notice, not less than 30 days prior to the hearing. The notice shall state that the parties may, but need not be, represented by counsel at the hearing. At least 30 days prior to the hearing, the variance

application shall be made available to the public for inspection. Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.

- (c) No variance shall be granted unless all of the following findings are made:
 - (1) that, because of reasons beyond the reasonable control of the applicant, requiring compliance with Section 94502 would result in extraordinary economic hardship;
 - (2) that the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance:
 - (3) that the compliance report proposed by the applicant can reasonably be implemented, and will achieve compliance as expeditiously as possible.
- (d) Any variance order shall specify a final compliance date by which the requirements of Section 94502 will be achieved. Any variance order shall contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.
- (e) A variance shall cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.
- (f) Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from requirements of Section 94502 after holding a public hearing in accordance with the provisions of subsection (b).

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94506. Test Methods.

(a)(1) Testing to determine the volatile organic compound of an antiperspirant or deodorant, or to determine compliance with the requirements of this article, shall be performed using Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted

September 25, 1997 and as last amended on May 5, 2005, which is incorporated herein by reference. Alternative methods which are shown to accurately determine the concentration of VOCs in a subject product or its emissions may be used upon approval of the Executive Officer.

(2) In sections 3.5 and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5 and 3.7 of Air Resources Board Method 310

- 3.5 Initial Determination of VOC Content. The Executive Officer will determine the VOC content pursuant to sections 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.
- 3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the product does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.
- 3.5.2 If the results obtained under section 3.5.1 show that the product does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.
- 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
- 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under sections 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the

formulation data.

- 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.
- 3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.
- 3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.
- (b) Testing to determine compliance with the requirements of this article may also be demonstrated through calculation of the volatile organic compound content from records of the amounts of constituents used to make the product. Compliance determination based on these records may not be used unless the manufacturer of a consumer product keeps accurate records for each day of production of the amount and chemical composition of the individual product constituents. These records must be kept for at least three years.
- (c) No person shall create, alter, falsify, or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of the individual product, and any other tests, processes, or records used in connection with product manufacture.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94506.5 Federal Enforceability.

For purposes of federal enforceability of this article, the Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under Sections 94503.5, 94505, or 94506. Within 180 days of a request from a person who has been granted an exemption or variance under Section 94503.5 or 94505, an exemption or variance meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to Section 110 of the Clean Air Act, 42 U.S.C., Section

7410. Prior to submitting an exemption granted under Section 94503.5 as a revision to the applicable implementation plan, the Executive Officer shall hold a public hearing on the proposed exemption. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to the Environmental Protection Agency, every person who requests such notice, and to any person or group of persons whom the Executive Officer believes may be interested in the application. Within 30 days of the hearing the Executive Officer shall notify the applicant of the decision in writing as provided in Section 94503.5(f). The decision may approve, disapprove, or modify an exemption previously granted pursuant to Section 94503.5.

NOTE: Authority cited: Section 39600, 39601, 39602 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39602, 40000 and 41712, Health and Safety Code.

REGULATION FOR REDUCING EMISSIONS FROM CONSUMER PRODUCTS

FINAL REGULATION ORDER REGULATION FOR REDUCING EMISSIONS FROM CONSUMER PRODUCTS

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 2. Consumer Products

§ 94507. Applicability.

Except as provided in Sections 94509(i) and 94510, this article shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products for use in the state of California.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94508. Definitions.

- (a) For the purpose of this article, the following definitions apply:
- (1) "Adhesive" means any product that is used to bond one surface to another by attachment. "Adhesive" does not include products used on humans and animals, adhesive tape, contact paper, wallpaper, shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate. For "Contact Adhesive," "Construction, Panel, and Floor Covering Adhesive," and "General Purpose Adhesive" only, "adhesive" also does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces. This limitation does not apply to aerosol adhesives.
- (2) "Adhesive Remover" means a product designed to remove adhesive from either a specific substrate or a variety of substrates. "Adhesive Remover" does not include products that remove adhesives intended for use on humans or animals.

For the purpose of this definition and "Adhesive Remover" subcategories (A-D), the term "adhesive" shall mean a substance used to bond one or more materials.

Adhesive includes, but is not limited to: caulks; sealants; glues; or similar substances used for the purpose of forming a bond.

- (A) "Floor or Wall Covering Adhesive Remover" means a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate.
- (B) "Gasket or Thread Locking Adhesive Remover" means a product designed

- or labeled to remove gaskets or thread locking adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover are considered "Gasket or Thread Locking Adhesive Remover."
- (C) "General Purpose Adhesive Remover" means a product designed or labeled to remove cyanoacrylate adhesives as well as non-reactive adhesives or residue from a variety of substrates. "General Purpose Adhesive Remover" includes, but is not limited to, products that remove thermoplastic adhesives; pressure sensitive adhesives; dextrine or starch-based adhesives; casein glues; rubber or latex-based adhesives; as well as products that remove stickers; decals; stencils; or similar materials. "General Purpose Adhesive Remover" does not include "Floor or Wall Covering Adhesive Remover."
- (D) "Specialty Adhesive Remover" means a product designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to: epoxies; urethanes; silicones. "Specialty Adhesive Remover" does not include "Gasket or Thread Locking Adhesive Remover."
- (3) "Aerosol Adhesive" means any adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. Aerosol adhesives include special purpose spray adhesives, mist spray adhesives, and web spray adhesives.
- (4) "Aerosol Cooking Spray" means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be applied on food, or both.
- (5) "Aerosol Product" means a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. "Aerosol Product" does not include "Pump Spray."
- (6) "Agricultural Use" means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage or processing of any animal or plant crop. "Agricultural Use" does not include the sale or use of pesticides in properly labeled packages or containers which are intended for: (A) Home use, (B) Use in structural pest control, or (C) Industrial or Institutional use. For the purposes of this definition only:

"Home use" means use in a household or its immediate environment.

"Structural pest control" means a use requiring a license under Chapter 14

(commencing with Section 8500), Division 3, of the Business and Professions Code.

"Industrial use" means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

"Institutional use" means use within the confines of, or on property necessary for the operation of buildings such as hospitals, schools, libraries, auditoriums, and office complexes.

- (7) "Air Freshener" means any product including, but not limited to, sprays, wicks, wipes, diffusers, powders, and crystals, designed or labeled for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. "Air Freshener" includes dual purpose air freshener/disinfectant products. "Air Freshener" does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, "Odor Remover/Eliminator," or "Toilet/Urinal Care Product."
- (8) "All Other Carbon-Containing Compounds" means all other compounds which contain at least one carbon atom and are not a "Table B" or a "LVP-VOC."
- (9) "All Other Forms" means all consumer product forms for which no form-specific VOC standard is specified. Unless specified otherwise by the applicable VOC standard, "all other forms" include, but are not limited to, solids, liquids (which includes the liquid containing or liquid impregnated portion of the cloth or paper wipes (towelettes), wicks, powders, and crystals.
- (10) "Antimicrobial Hand or Body Cleaner or Soap" means a cleaner or soap which is designed to reduce the level of microorganisms on the skin through germicidal activity, and is regulated as an over-the-counter drug by the U.S. Food and Drug Administration. "Antimicrobial Hand or Body Cleaner or Soap" includes, but is not limited to, (A) antimicrobial hand or body washes/cleaners, (B) foodhandler hand washes, (C) healthcare personnel hand washes, (D) pre-operative skin preparations and (E) surgical scrubs. "Antimicrobial Hand or Body Cleaner or Soap" does not include prescription drug products, antiperspirants, "Astringent/Toner," deodorant, "Facial Cleaner or Soap," "General-use Hand or Body Cleaner or Soap," "Hand Dishwashing Detergent" (including antimicrobial), "Heavy-duty Hand Cleaner or Soap," "Medicated Astringent/Medicated Toner," and "Rubbing Alcohol."
- (11) "Anti-Static Product" means a product that is labeled to eliminate, prevent, or inhibit the accumulation of static electricity. "Anti-Static Product" does not include "Electronic Cleaner," "Floor Polish or Wax," "Floor Coating," and products that meet the definition of "Aerosol Coating Product" or "Architectural Coating."

- (12) "Architectural Coating" means a coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.
- (13) "Aromatic Compound" means a carbon containing compound that contains one or more benzene or equivalent heterocyclic rings and has an initial boiling point less than or equal to 280°C. "Aromatic Compound" does not include compounds excluded from the definition of Volatile Organic Compound (VOC) in this Section 94508(a).
- (14) "Artist's Solvent/Thinner" means any liquid product, labeled to meet ASTM D4236 95 (March 1, 2005) Standard Practice for Labeling Art Materials for Chronic Health Hazards, which is incorporated by reference herein, and packaged in a container equal to or less than 32 fluid ounces, labeled to reduce the viscosity of, and or remove, art coating compositions or components.
- (15) "ASTM" means ASTM International.
- (16) "Astringent/Toner" means any product designed or labeled to be applied to the skin for the purpose of cleaning or tightening pores. This category also includes clarifiers and substrate-impregnated products. This category does not include any hand, face, or body cleaner or soap product, "Medicated Astringent/Medicated Toner," cold cream, lotion, antiperspirant, or any Astringent/Toner product regulated as a drug by the United States Food and Drug Administration (FDA).
- (17) "Automotive Hard Paste Wax" means an automotive wax or polish which is: (A) designed to protect and improve the appearance of automotive paint surfaces; and (B) a solid at room temperature; and (C) contains 0% water by formulation.
- (18) "Automotive Instant Detailer" means a product designed for use in a pump spray that is applied to the painted surface of automobiles and wiped off prior to the product being allowed to dry.
- (19) "Automotive Rubbing or Polishing Compound" means a product designed primarily to remove oxidation, old paint, scratches or "swirl marks," and other defects from the painted surfaces of motor vehicles without leaving a protective barrier.
- (20) "Automotive Wax, Polish, Sealant or Glaze" means a product designed to seal out moisture, increase gloss, or otherwise enhance a motor vehicle's painted surfaces. "Automotive Wax, Polish, Sealant or Glaze" includes, but is not limited to, products designed for use in autobody repair shops and "drive-through" car washes, as well as products designed for the general public. "Automotive Wax, Polish, Sealant or Glaze" does not include "Automotive Rubbing or Polishing Compound," automotive wash and wax products, surfactant-containing car wash

- products, and products designed for use on unpainted surfaces such as bare metal, chrome, glass, or plastic.
- (21) "Automotive Windshield Washer Fluid (Dilutable)" means any liquid which meets the following criteria:
 - (A) the product is sold either in a container with a capacity of 10 gallons or more, or a container with a capacity of one quart or less; and
 - (B) the product is designed or labeled for use in a motor vehicle windshield washer fluid system either as an anti-freeze or for the purpose of cleaning, washing, bug removal, or wetting the windshield(s).
 - "Automotive Windshield Washer Fluid (Dilutable)" does not include any fluid which is placed in a new motor vehicle at the time the vehicle is manufactured.
- (22) "Automotive Windshield Washer Fluid (Pre-Mixed)" means any liquid which meets the following criteria:
 - (A) the product is sold in a container with a capacity that is greater than one quart, but less than 10 gallons; and
 - (B) the product is designed or labeled for use in a motor vehicle windshield washer fluid system as an anti-freeze or for the purpose of cleaning, washing, bug removal, or wetting the windshield(s).
 - "Automotive Windshield Washer Fluid (Pre-Mixed)" does not include any fluid which is placed in a new motor vehicle at the time the vehicle is manufactured.
- (23) "Bathroom and Tile Cleaner" means a product designed or labeled to clean tile or surfaces in bathrooms. "Bathroom and Tile Cleaner" does not include "Toilet/Urinal Care Product."
- (24) "Brake Cleaner" means a cleaning product designed or labeled to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.
- (25) "Bug and Tar Remover" means a product labeled to remove either or both of the following from painted motor vehicle surfaces without causing damage to the finish: (A) biological-type residues such as insect carcasses and tree sap and, (B) road grime, such as road tar, roadway paint markings, and asphalt.
- (26) "California Sales" means the sales (net pounds of product, less packaging and container, per year) in California for either the calendar year immediately prior to the year that the information required by the Executive Officer pursuant to section 94513 (required information) is due or, if that data is not available, any

- consecutive 12 month period commencing no earlier than 2 years prior to the due date of the required information. If direct sales data for California is not available, sales may be estimated by prorating national or regional sales data by population.
- (27) "Carburetor or Fuel-Injection Air Intake Cleaner" means a product designed or labeled to remove fuel deposits, dirt, or other contaminants from a carburetor, choke, throttle body of a fuel-injection system, or associated linkages. "Carburetor or Fuel-injection Air Intake Cleaner" does not include products designed or labeled exclusively to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors, or products designed or labeled exclusively to be introduced during engine operation directly into air intake vacuum lines by using a pressurized sprayer wand.
- (28) "Carpet/Upholstery Cleaner" means a cleaning product designed or labeled for the purpose of eliminating dirt or stains on rugs, carpeting, or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics. "Carpet/Upholstery Cleaner" includes, but is not limited to, products used on household furniture, the interior of motor vehicles, and products that make "Fabric Protectant" claims. "Carpet/Upholstery Cleaner" does not include "Spot Remover," vinyl or leather cleaners, "Dry Cleaning Fluid," or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.
- (29) "Charcoal Lighter Material" means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. "Charcoal Lighter Material" does not include any of the following: (A) electrical starters and probes, (B) metallic cylinders using paper tinder, (C) natural gas, (D) propane, and (E) fat wood.
- (30) "Colorant" means any pigment or coloring material used in a consumer product for an aesthetic effect, or to dramatize an ingredient.
- (31) "Construction, Panel, and Floor Covering Adhesive" means any non-aerosol, one-component adhesive that is designed or labeled for the installation, remodeling, maintenance, or repair of: (A) structural and building components that include, but are not limited to, beams, trusses, studs, paneling (drywall or drywall laminates, fiberglass reinforced plastic (FRP), plywood, particle board, insulation board, pre-decorated hardboard or tileboard, etc.), ceiling and acoustical tile, molding, fixtures, countertops or countertop laminates, cove or wall bases, and flooring or subflooring; or (B) floor or wall coverings that include, but are not limited to, wood or simulated wood covering, carpet, carpet pad or cushion, vinyl-backed carpet, flexible flooring material, nonresilient flooring material, mirror tiles and other types of tiles, and artificial grass. "Construction, Panel, and Floor Covering Adhesive" does not include "Floor Seam Sealer."
- (32) "Consumer" means any person who seeks, purchases, or acquires any

- consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not "consumers" for that product.
- (33) "Consumer Product" means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. As used in this article, the term "consumer product" shall also refer to aerosol adhesives, including aerosol adhesives used for consumer, industrial, and commercial uses.
- (34) "Contact Adhesive" means a non-aerosol adhesive that: (A) is designed for application to both surfaces to be bonded together, and (B) is allowed to dry before the two surfaces are placed in contact with each other, and (C) forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and (D) does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. "Contact Adhesive" does not include rubber cements that are primarily intended for use on paper substrates. "Contact Adhesive" also does not include vulcanizing fluids that are designed and labeled for tire repair only.
- (35) "Contact Adhesive General Purpose" means any contact adhesive that is not a "Contact Adhesive Special Purpose."
- (36) "Contact Adhesive Special Purpose" means a contact adhesive that: (A) is used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces, or (B) is used in automotive applications that are (1.) automotive under-the-hood applications requiring heat, oil or gasoline resistance, or (2.) body-side molding, automotive weatherstrip or decorative trim.
- (37) "Container/Packaging" means the part or parts of the consumer or institutional product which serve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances which is solely responsible for accomplishing the purposes for which the product was designed or intended. "Container/Packaging" includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.
- (38) "Crawling Bug Insecticide" means any insecticide product that is designed for use against ants, cockroaches, or other household crawling arthropods, including, but

not limited to, mites, silverfish or spiders. "Crawling Bug Insecticide" does not include products designed to be used exclusively on humans or animals, or any house dust mite product. For the purposes of this definition only:

"House dust mite product" means a product whose label, packaging, or accompanying literature states that the product is suitable for use against house dust mites, but does not indicate that the product is suitable for use against ants, cockroaches, or other household crawling arthropods.

"House dust mite" means mites which feed primarily on skin cells shed in the home by humans and pets and which belong to the phylum Arthropoda, the subphylum Chelicerata, the class Arachnida, the subclass Acari, the order Astigmata, and the family Pyroglyphidae.

- (39) "Deodorant Body Spray" means:
 - (A) for products manufactured before January 1, 2006: a "Personal Fragrance Product" with 20 percent or less fragrance.
 - (B) for products manufactured on or after January 1, 2006: a "Personal Fragrance Product" with 20 percent or less fragrance, that is designed for application all over the human body to provide a scent. A "Deodorant Body Spray" product that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that it can be used on or applied to the human axilla, is a "Deodorant" as defined in section 94501(d).
- (40) "Device" means any instrument or contrivance (other than a firearm) which is designed for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life (other than man and other than bacteria, virus, or other microorganism on or in living man or other living animals); but not including equipment used for the application of pesticides when sold separately therefrom.
- (41) "Disinfectant" means a product that is labeled as a "disinfectant", or is labeled to destroy or irreversibly inactivate infectious or other undesirable bacteria, pathogenic fungi, or viruses on surfaces or inanimate objects and whose label is registered as a "disinfectant" under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 U.S.C. 136, et seq.). Products that are labeled as both a "sanitizer" and a "disinfectant" are considered disinfectants. "Disinfectant" does not include any of the following: (A) products labeled solely for use on humans or animals, (B) products labeled solely for agricultural use, (C) products labeled solely for use in swimming pools, therapeutic tubs, or hot tubs, (D) products which are labeled to be used on heat sensitive critical or semi-critical medical devices or medical equipment surfaces, (E) products which are premoistened wipes or towelettes sold exclusively to medical, convalescent, or veterinary establishments, (F) products which are labeled to be applied to food-contact surfaces and are not required to be rinsed prior to contact with food,

- or (G) products which are labeled as "Bathroom and Tile Cleaner," "Glass Cleaner," "General Purpose Cleaner," "Toilet/Urinal Care Product," "Metal Polish," "Carpet Cleaner," or "Fabric Refresher" that may also make disinfecting or anti-microbial claims on the label.
- (42) "Distributor" means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.
- (43) "Double Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in two or more distinct phases that requires the product container be shaken before use to mix the phases, producing an emulsion.
- (44) "Dry Cleaning Fluid" means any non-aqueous liquid product designed and labeled exclusively for use on: (1) fabrics which are labeled "for dry clean only," such as clothing or drapery; or (2) "S-coded" fabrics. "Dry Cleaning Fluid" includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at the customer's residence or work place. "Dry Cleaning Fluid" does not include "Spot Remover" or "Carpet/Upholstery Cleaner." For the purposes of this definition, S-coded fabric means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards Committee."
- (45) "Dual Purpose Air Freshener/Disinfectant" means an aerosol product that is represented on the product container for use as both a disinfectant and an air freshener, or is so represented on any sticker, label, packaging, or literature attached to the product container.
- (46) "Dusting Aid" means a product designed or labeled to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating. "Dusting Aid" does not include "Pressurized Gas Duster."
- (47) "Electrical Cleaner" means a product labeled to remove heavy soils such as grease, grime, or oil from electrical equipment, including, but not limited to, electric motors, armatures, relays, electric panels, or generators. Electrical Cleaner does not include "General Purpose Cleaner," "General Purpose Degreaser," "Dusting Aid," "Electronic Cleaner," "Energized Electrical Cleaner," "Pressurized Gas Duster," "Engine Degreaser," "Anti-Static Product," or products designed to clean the casings or housings of electrical equipment.
- (48) "Electronic Cleaner" means a product labeled for the removal of dirt, moisture, dust, flux, or oxides from the internal components of electronic or precision equipment such as circuit boards, and the internal components of electronic devices, including but not limited to, radios, compact disc (CD) players, digital video disc (DVD) players, and computers. "Electronic Cleaner" does not include

- "General Purpose Cleaner," "General Purpose Degreaser," "Dusting Aid," "Pressurized Gas Duster," "Engine Degreaser," "Electrical Cleaner," "Energized Electrical Cleaner," "Anti-Static Product," or products labeled to clean the casings or housings of electronic equipment. "Electronic Cleaner" does not include any product that meets both of the following criteria:
- the product is labeled to clean and/or degrease electronic equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component;
- 2) the product label clearly displays the statements: "Energized Electronic Equipment use only."
- (49) "Energized Electrical Cleaner" means a product that meets both of the following criteria:
 - the product is labeled to clean and/or degrease electrical equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component such as a capacitor;
 - 2) the product label clearly displays the statements: "Energized Equipment use only. Not to be used for motorized vehicle maintenance, or their parts."
 - "Energized Electrical Cleaner" does not include "Electronic Cleaner."
- (50) "Engine Degreaser" means a cleaning product designed or labeled to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.
- (51) "Executive Officer" means the Executive Officer of the Air Resources Board, or his or her delegate.
- (52) "Existing Product" means any formulation of the same product category and form sold, supplied, manufactured, or offered for sale in California prior to the following dates, or any subsequently introduced identical formulation:
 - (A) October 21, 1991, for all products listed in section 94509(a) that have initial effective dates of January 1, 1993, or January 1, 1994;
 - (B) January 6, 1993, for all products listed in section 94509(a) that have initial effective dates of January 1, 1995, or January 1, 1997, and charcoal lighter materials subject to section 94509(h);
 - (C) August 16, 1998, for all products listed in section 94509(a) that have initial effective dates of January 1, 2001, January 1, 2002, January 1, 2003, or

January 1, 2005;

- (D) November 19, 2000, for all products in the following product categories listed in section 94509(a): "Non-aerosol General Purpose Degreaser," "Sealant and Caulking Compound," and "Tire Sealant and Inflator."
- (E) July 20, 2005, for all products listed in section 94509(a) that have an effective date of December 31, 2006, December 31, 2008, or December 31, 2009; and
- (F) December 8, 2007, for all products listed in section 94509(a) that have an initial effective date of December 31, 2008, or December 31, 2010 for Brake Cleaner, Carburetor or Fuel-Injection Air Intake Cleaner, Aerosol Engine Degreaser, Resilient Flooring Material, Nonresilient Flooring Material, Aerosol General Purpose Degreaser, and Aerosol Temporary Hair Color.
- (G) July 18, 2009, for all products listed in section 94509(a) that have an initial effective date of December 31, 2010, or December 31, 2012, December 31, 2013, or December 31, 2014.

(53) "Fabric Protectant" means:

- (A) for products manufactured before December 31, 2008: a product designed or labeled to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of liquid into the fabric's fibers. "Fabric Protectant" does not include "Waterproofers," products designed for use solely on leather, or products designed for use solely on fabrics which are labeled "for dry clean only" and sold in containers of 10 fluid ounces or less.
- (B) for products manufactured on or after December 31, 2008: a product designed or labeled to be applied to fabric substrates to protect the surface from soiling from dirt or other impurities or to reduce absorption of liquid into the fabric's fibers. "Fabric Protectant" does not include "Waterproofers," or products labeled for use solely on leather. "Fabric Protectant" does not include pigmented products that are designed or labeled to be used primarily for coloring, products used for construction, reconstruction, modification, structural maintenance or repair of fabric substrates, or products that renew or restore fabric and qualifying as either "Clear Coating" or "Vinyl/Fabric/Leather/Polycarbonate Coating" under section 94521(a).
- (54) "Fabric Refresher" means a product labeled to neutralize or eliminate odors on non-laundered fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, clothing and/or on household furniture or objects upholstered or covered with fabrics such as, but not limited to, wool, cotton, or nylon. "Fabric Refresher" does

- not include "Anti-static Product," "Carpet/Upholstery Cleaner," "Footwear or Leather Care Product," "Spot Remover," or "Disinfectant," or products labeled for application to both fabric and human skin.
- (55) "Fabric Softener-Single Use Dryer Product" means a laundry care product designed or labeled for single use in the clothes dryer to impart softness to, or control static cling of, a load of washable fabrics; and may impart a fragrance or scent. For the purpose of this definition only, "single use" means a product that is intended for one time use during a single drying cycle and is removed after completion of the drying cycle. A "load" is the amount of washable fabrics in a single drying cycle. "Fabric Softener-Single Use Dryer Product" includes treated nonwoven sheets which are typically packaged in boxes with a multiple number of sheets. "Fabric Softener-Single Use Dryer Product" does not include products applied to washable fabrics prior to placing the washable fabrics in the clothes dryer.
- (56) "Facial Cleaner or Soap" means a cleaner or soap designed primarily to clean the face. "Facial Cleaner or Soap" includes, but is not limited to, facial cleansing creams, semisolids, liquids, lotions, and substrate-impregnated forms. "Facial Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap," "Astringent/Toner," "General-use Hand or Body Cleaner or Soap," "Medicated Astringent/Medicated Toner," or "Rubbing Alcohol."
- (57) "Fat Wood" means pieces of wood kindling with high naturally-occurring levels of sap or resin which enhance ignition of the kindling. "Fat wood" does not include any kindling with substances added to enhance flammability, such as wax-covered or wax-impregnated wood-based products.
- (58) "Flea and Tick Insecticide" means any insecticide product that is designed for use against fleas, ticks, their larvae, or their eggs. "Flea and Tick Insecticide" does not include products that are designed to be used exclusively on humans or animals and their bedding.
- (59) "Floor Coating" means an opaque coating that is labeled and designed for application to flooring, including but not limited to, decks, porches, steps, and other horizontal surfaces which may be subject to foot traffic.
- (60) "Floor Maintenance Product" means any product designed or labeled to restore, maintain, or enhance a previously applied floor finish. "Floor Maintenance Product" includes, but is not limited to, products that are labeled as Spray Buff products or Floor Maintainers or Restorers. "Floor Maintenance Product" does not include floor polish products, products designed solely for the purpose of cleaning, products designed or labeled exclusively for use on marble floors, or coatings subject to architectural coatings regulations.

(61) "Floor Polish or Wax" means a product designed or labeled to polish, wax, condition, protect, temporarily seal, or otherwise enhance floor surfaces by leaving a protective finish that is designed or labeled to be periodically replenished. "Floor Polish or Wax" does not include "Floor Maintenance Products," "Floor Wax Stripper," or coatings subject to architectural coatings regulations.

"Floor Polish or Wax" is divided into three subcategories: products for resilient flooring materials, products for nonresilient flooring materials and wood floor wax. For the purposes of this article:

- (A) "Resilient Flooring Material" means flexible flooring material including but is not limited to, asphalt, cork, linoleum, no-wax, rubber, seamless vinyl, and vinyl composite flooring.
- (B) "Nonresilient Flooring Material" means flooring of a mineral content which is not flexible. "Nonresilient Flooring material" includes but is not limited to terrazzo, marble, slate, granite, brick, stone, ceramic tile, and concrete.
- (C) "Wood Floor Wax" means any wax-based products designed or labeled for use solely on wood floors. "Wood Floor Wax" does not include products that make the claim to "clean and wax" or "clean and polish."
- (62) "Floor Seam Sealer" means any product designed and labeled exclusively for bonding, fusing, or sealing (coating) seams between adjoining rolls of installed flexible sheet flooring.
- (63) "Floor Wax Stripper" means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax. "Floor Wax Stripper" does not include aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.
- (64) "Flying Bug Insecticide" means any insecticide product that is designed for use against flying insects or other flying arthropods, including but not limited to flies, mosquitoes, moths, or gnats. "Flying Bug Insecticide" does not include "wasp and hornet insecticide," products that are designed to be used exclusively on humans or animals, or any moth-proofing product. For the purposes of this definition only, "moth-proofing product" means a product whose label, packaging, or accompanying literature indicates that the product is designed to protect fabrics from damage by moths, but does not indicate that the product is suitable for use against flying insects or other flying arthropods.
- (65) "Footwear or Leather Care Product" means any product designed or labeled to be applied to footwear or to other leather articles/components, to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of

the footwear or leather article/component. Footwear includes both leather and non-leather foot apparel. "Footwear or Leather Care Product" does not include "Fabric Protectant," "General Purpose Adhesive," "Contact Adhesive," "Vinyl/Fabric/Leather/Polycarbonate Coating," as defined in section 94521(a), "Rubber/Vinyl Protectant," "Fabric Refresher," products solely for deodorizing, or sealant products with adhesive properties used to create external protective layers greater than 2 millimeters thick.

- (66) "Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of 2 mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.
- (67) "Furniture Maintenance Product" means a wax, polish, conditioner, or any other product labeled for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors, and other furniture surfaces including but not limited to acrylics, ceramic, plastics, stone surfaces, metal surfaces, and fiberglass. "Furniture Maintenance Product" does not include "Dusting Aid," "Wood Cleaner," and products designed solely for the purpose of cleaning, or products designed to leave a permanent finish such as stains, sanding sealers and lacquers.
- (68) "Furniture Coating" means any paint designed for application to room furnishings including, but not limited to, cabinets (kitchen, bath and vanity), tables, chairs, beds, and sofas.
- (69) "Gel" means a colloid in which the disperse phase has combined with the continuous phase to produce a semisolid material, such as jelly.
- (70) "General Purpose Adhesive" means any non-aerosol adhesive designed for use on a variety of substrates. "General Purpose Adhesive" does not include (A) contact adhesives, (B) construction, panel, and floor covering adhesives, (C) adhesives designed exclusively for application on one specific category of substrates (i.e., substrates that are composed of similar materials, such as different types of metals, paper products, ceramics, plastics, rubbers, or vinyls), or (D) adhesives designed exclusively for use on one specific category of articles (i.e., articles that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping, or carpets).
- (71) "General Purpose Cleaner" means a general purpose cleaning product labeled for use on a variety of hard surfaces, including small appliances. "General Purpose Cleaner" includes, but is not limited to, products designed or labeled for general floor cleaning, kitchen, countertop, or sink cleaning, and cleaners designed or labeled to be used on a variety of hard surfaces such as stovetops, cooktops, or microwaves.

- (72) "General Purpose Degreaser" means any product labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts. "General Purpose Degreaser" does not include "Engine Degreaser," "General Purpose Cleaner," "Adhesive Remover," "Electronic Cleaner," "Electrical Cleaner," "Energized Electrical Cleaner," "Metal Polish/Cleanser," products used exclusively in "solvent cleaning tanks or related equipment," or products that are (A) sold exclusively to establishments which manufacture or construct goods or commodities; and (B) labeled "not for retail sale." "Solvent cleaning tanks or related equipment" includes, but is not limited to, cold cleaners, vapor degreasers, conveyorized degreasers, film cleaning machines, or products designed to clean miscellaneous metallic parts by immersion in a container.
- (73) "General-use Hand or Body Cleaner or Soap" means a cleaner or soap designed to be used routinely on the skin to clean or remove typical or common dirt and soils. "General-use Hand or Body Cleaner or Soap" includes, but is not limited to, hand or body washes, dual-purpose shampoo-body cleaners, shower or bath gels, and moisturizing cleaners or soaps. "General-use Hand or Body Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap," "Astringent/Toner," "Facial Cleaner or Soap," "Hand Dishwashing Detergent" (including antimicrobial), "Heavy-duty Hand Cleaner or Soap," "Medicated Astringent/Medicated Toner," or "Rubbing Alcohol."
- (74) "Glass Cleaner" means a cleaning product designed or labeled primarily for cleaning surfaces made of glass. "Glass Cleaner" does not include products designed or labeled solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment and photocopying machines.
- (75) "Global Warming Potential (GWP)" means the radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time.
- (76) "Global Warming Potential Value" or "GWP Value" means the global warming potential value of a chemical or compound as specified in the IPCC: 1995 Second Assessment Report (SAR), Table 2.14, in Climate Change 2007: The Physical Sciences Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, which is incorporated by reference herein.
 - If Table 2.14 does not contain a SAR 100-year GWP Value for a specific chemical or compound, then the 100-year GWP Value in Table 2.14 for that chemical or compound shall be used. If there is no 100-year GWP Value for a chemical or compound listed in Table 2.14 or GWP Value listed in Table 2.15, then the GWP Value is assumed to be equal to the GWP limit of the applicable product category.

- (77) "Graffiti Remover" means a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish, or shoe polish, from a variety of non-cloth or non-fabric substrates. "Graffiti Remover" does not include "Paint Remover or Stripper," "Nail Polish Remover," or "Spot Remover." Products labeled for dual use as both a paint stripper and graffiti remover are considered "Graffiti Removers."
- (78) "Hair Mousse" means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.
- (79) "Hair Shine" means any product designed for the primary purpose of creating a shine when applied to the hair. "Hair Shine" includes, but is not limited to, dual-use products designed primarily to impart a sheen to the hair. "Hair Shine" does not include "Hair Spray," "Hair Mousse," "Hair Styling Product," "Hair Styling Gel," or products whose primary purpose is to condition or hold the hair.
- (80) "Hair Styling Gel" means a consumer product manufactured before December 31, 2006, that is a high viscosity, often gelatinous, product that contains a resin and is designed for the application to hair to aid in styling and sculpting of the hair coiffure.
- (81) "Hair Spray" means:
 - (A) for products manufactured before December 31, 2006: a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure which will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time, and
 - (B) for products manufactured on or after December 31, 2006: a consumer product that is applied to styled hair, and is designed or labeled to provide sufficient rigidity, to hold, retain and/or (finish) the style of the hair for a period of time. "Hair Spray" includes aerosol hair sprays, pump hair sprays, spray waxes; color, glitter, or sparkle hairsprays that make finishing claims; and products that are both a styling and finishing product. "Hair Spray" does not include spray products that are intended to aid in styling but do not provide finishing of a hairstyle.

For the purposes of this subchapter, "finish" or "finishing" means the maintaining and/or holding of previously styled hair for a period of time.

For the purposes of this subchapter, "styling" means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

(82) "Hair Styling Product" means a consumer product manufactured on or after December 31, 2006, that is designed or labeled for the application to wet, damp

or dry hair to aid in defining, shaping, lifting, styling and/or sculpting of the hair. "Hair Styling Product" includes, but is not limited to hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle, and leave-in volumizers, detanglers and/or conditioners that make styling claims. "Hair Styling Product" does not include "Hair Mousse," "Hair Shine," "Hair Spray," or shampoos and/or conditioners that are rinsed from the hair prior to styling.

For the purposes of this subchapter, "finish" or "finishing" means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this subchapter, "styling" means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

- (83) "Heavy-Duty Hand Cleaner or Soap" means a product designed to clean or remove difficult dirt and soils such as oil, grease, grime, tar, shellac, putty, printer's ink, paint, graphite, cement, carbon, asphalt, or adhesives from the hand with or without the use of water. "Heavy-duty Hand Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap," "Astringent/Toner," "Facial Cleaner or Soap," "General-use Hand or Body Cleaner or Soap," "Medicated Astringent/Medicated Toner" or "Rubbing Alcohol."
- (84) "Herbicide" means a pesticide product designed to kill or retard a plant's growth, but excludes products that are: (A) for agricultural use, or (B) restricted materials that require a permit for use and possession.
- (85) "High-Temperature Coating" means a high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).
- (86) "Household Product" means any consumer product that is primarily designed to be used inside or outside of living quarters or residences that are occupied or intended for occupation by individuals, including the immediate surroundings.
- (87) "Industrial Maintenance Coating" means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed below and labeled "For industrial use only;" "For professional use only;" "Not for residential use;" or "Not intended for residential use."
 - (A) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation; or
 - (B) Acute or chronic exposure to corrosive, caustic or acidic agents, or to

- chemicals, chemical fumes, or chemical mixtures or solutions; or
- (C) Frequent exposure to temperatures above 121°C (250°F); or
- (D) Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or
- (E) Exterior exposure of metal structures and structural components.
- (88) "Insect Repellent" means a pesticide product that is designed to be applied on human skin, hair or attire worn on humans in order to prevent contact with or repel biting insects or arthropods.
- (89) "Insecticide" means a pesticide product that is designed for use against insects or other arthropods, but excluding products that are: (A) for agricultural use, or (B) for a use which requires a structural pest control license under Chapter 14 (commencing with Section 8500) of the Business and Professions Code, or (C) restricted materials that require a permit for use and possession.
- (90) "Insecticide Fogger" means any insecticide product designed to release all or most of its content, as a fog or mist, into indoor areas during a single application.
- (91) "Institutional Product" or "Industrial and Institutional (I&I) Product" means a consumer product that is designed for use in the maintenance or operation of an establishment that: (A) manufactures, transports, or sells goods or commodities, or provides services for profit; or (B) is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. "Institutional Product" does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.
- (92) "Label" means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.
- (93) "Laundry Prewash" means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.
- (94) "Laundry Starch/Sizing/Fabric Finish Product" means a product that is labeled for application to a fabric, either during or after laundering, to impart and prolong a

- crisp, fresh look and may also act to help ease ironing of the fabric. "Laundry Starch/Sizing/Fabric Finish Product" includes, but is not limited to, starch, sizing, and fabric finish
- (95) "Lawn and Garden Insecticide" means an insecticide product labeled primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods. Notwithstanding the requirements of section 94512(a) aerosol "Lawn and Garden Insecticide" may claim to kill insects or other arthropods.
- (96) "Liquid" means a substance or mixture of substances which is capable of a visually detectable flow as determined under ASTM D-4359-90 (May 25, 1990) Standard Test Method for Determining Whether a Material Is a Liquid or a Solid, which is incorporated by reference herein. "Liquid" does not include powders or other materials that are composed entirely of solid particles.
- (97) "Lubricant" means a product that reduces friction, heat, noise, or wear between moving parts, or loosens rusted or immovable parts or mechanisms. "Lubricant" does not include automotive power steering fluids; products for use inside power generating motors, engines, and turbines, and their associated power-transfer gearboxes; two cycle oils or other products designed to be added to fuels; products for use on the human body or animals or products that are (1) sold exclusively to establishments which manufacture or construct goods or commodities, and (2) labeled "not for retail sale."
- (98) "LVP-VOC" means a chemical "compound" or "mixture" that contains at least one carbon atom and meets one of the following:
 - (A) has a vapor pressure less than 0.1 mm Hg at 20°C, as determined by ARB Method 310; or
 - (B) is a chemical "compound" with more than 12 carbon atoms, or a chemical "mixture" comprised solely of "compounds" with more than 12 carbon atoms, as verified by formulation data, and the vapor pressure and boiling point are unknown; or
 - (C) is a chemical "compound" with a boiling point greater than 216°C, as determined by ARB Method 310; or
 - (D) is the weight percent of a chemical "mixture" that boils above 216°C, as determined by ARB Method 310.

For the purposes of the definition of LVP-VOC, chemical "compound" means a molecule of definite chemical formula and isomeric structure, and chemical "mixture" means a substance comprised of two or more chemical "compounds."

(99) "Manufacturer" means any person who imports, manufactures, assembles,

- produces, packages, repackages, or relabels a consumer product.
- (100) "Medicated Astringent/Medicated Toner" means any product regulated as a drug by the Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. "Medicated Astringent/Medicated Toner" includes, but is not limited to, clarifiers and substrate-impregnated products. "Medicated Astringent/Medicated Toner" does not include hand, face, or body cleaner or soap products, "Personal Fragrance Product," "Astringent/Toner," cold cream, lotion, antiperspirants, or products that must be purchased with a doctor's prescription.
- (101) "Metal Polish/Cleanser" means any product designed primarily to improve the appearance of finished metal, metallic, or metallized surfaces by physical or chemical action. To "improve the appearance" means to remove or reduce stains, impurities, or oxidation from surfaces or to make surfaces smooth and shiny. "Metal Polish/Cleanser" includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals. "Metal Polish/Cleanser" does not include "Automotive Wax, Polish, Sealant or Glaze," Tire or Wheel Cleaner," "Paint Remover or Stripper," products designed and labeled exclusively for automotive and marine detailing, or products designed for use in degreasing tanks.
- (102) "Mist Spray Adhesive" means any aerosol adhesive which is not a "Special Purpose Spray Adhesive" and which delivers a particle or mist spray, resulting in the formation of fine, discrete particles that yield a generally uniform and smooth application of adhesive to the substrate.
- (103) "Motor Vehicle Wash" means a product designed or labeled to wash, wash and wax, wash and shine, or wash and/or clean the exterior surface of motor vehicles. "Motor Vehicle Wash" includes, but is not limited to, products for use in commercial, fleet, hand, and "drive through" car washes; commercial truck washing or large vehicle washing stations; vehicle dealers and repair shops as well as products intended for household consumer use. "Motor Vehicle Wash" does not include "Bug and Tar Remover," "Glass Cleaner," "Tire or Wheel Cleaner," and products labeled for use exclusively on locomotives or aircraft.
- (104) "Multi-purpose Dry Lubricant" means any lubricant which is: (A) designed or labeled to provide lubricity solely by depositing a thin film of graphite, molybdenum disulfide ("moly"), or polytetrafluoroethylene or closely related fluoropolymer ("teflon") on surfaces, and (B) designed or labeled for general purpose lubrication, or for use in a wide variety of applications.
- (105) "Multi-purpose Lubricant" means any lubricant designed or labeled for general purpose lubrication, or a lubricant labeled for use in a wide variety of applications. "Multi-purpose Lubricant" does not include "Multi-purpose Dry

Lubricant," "Penetrant," or "Silicone-based Multi-Purpose Lubricant."

- (106) "Multi-purpose Solvent" means:
 - (A) for products manufactured before January 1, 2008: any organic liquid designed to be used for a variety of purposes, including cleaning or degreasing of a variety of substrates, or thinning, dispersing or dissolving other organic materials. "Multi-purpose Solvent" includes solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. "Multi-purpose Solvent" does not include solvents used in cold cleaners, vapor degreasers, conveyorized degreasers or film cleaning machines, or solvents that are incorporated into, or used exclusively in the manufacture or construction of, the goods or commodities at the site of the establishment.
 - (B) for products manufactured on or after January 1, 2008: any liquid product designed or labeled to be used for dispersing, dissolving, or removing contaminants or other organic materials. "Multi-purpose Solvent" also includes: 1. products that do not display specific use instructions on the product container or packaging, 2. products that do not specify an end-use function or application on the product container or packaging, 3. solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories, 4. "Paint clean-up" products, and (5.) products labeled to prepare surfaces for painting. For the purposes of this definition only, "Paint clean-up" means any liquid product labeled for cleaning oil-based or water-based paint, lacquer, varnish, or related coatings from, but not limited to, painting equipment or tools, plastics, or metals. "Multi-purpose Solvent" does not include solvents used in cold cleaners, vapor degreasers, conveyorized degreasers or film cleaning machines, solvents labeled exclusively for the clean-up of application equipment used for polyaspartic and polyurea coatings, or solvents that are incorporated into, or used exclusively in the manufacture or construction of, the goods or commodities at the site of the establishment. "Multi-purpose Solvent" also does not include any product making any representation that the product may be used as, or is suitable for use as a consumer product which qualifies under another definition in section 94508: such products are not Multi-purpose Solvents and are subject to the "Most Restrictive Limit" provision of section 94512.
- (107) "Nail Polish" means any clear or colored coating designed for application to the fingernails or toenails and including but not limited to, lacquers, enamels, acrylics, base coats and top coats.
- (108) "Nail Polish Remover" means a product designed to remove nail polish and coatings from fingernails or toenails.

- (109) "Non-Carbon Containing Compound" means any compound which does not contain any carbon atoms.
- (110) "Non-Selective Terrestrial Herbicide" means a terrestrial herbicide product that is toxic to plants without regard to species.
- (111) "Odor Remover/Eliminator" means a product that is designed or labeled to be applied exclusively to hard surfaces to inhibit the ability of soils to create malodors, or functions to entrap, encapsulate, neutralize, convert or eliminate malodor molecules. "Odor Remover/Eliminator" does not include products designed or labeled for use in cleaning soils from hard surfaces, laundering, softening, de-wrinkling or cleaning fabrics, or dishwashing, or products that are defined as "Air Freshener," "Bathroom and Tile Cleaner," "Carpet/Upholstery Cleaner," "Fabric Refresher," "General Purpose Cleaner," "Toilet/Urinal Care Product," "Disinfectant," or "Sanitizer."
- (112) "Oven Cleaner" means any cleaning product designed or labeled to clean and to remove dried or baked on food deposits from oven walls.
- (113) "Paint" means any pigmented liquid, liquefiable, or mastic composition designed for application to a substrate in a thin layer which is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.
- (114) "Paint Remover or Stripper" means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting the substrate. "Paint Remover or Stripper" does not include "Multi-purpose Solvent," paint brush cleaners, products designed and labeled exclusively as "Graffiti Remover," and hand cleaner products that claim to remove paints and other related coatings from skin.
- (115) "Paint Thinner" means any liquid product used for reducing the viscosity of coating compositions or components, that prominently displays the term "Paint Thinner," "Lacquer Thinner," "Thinner," or "Reducer" on the front panel of its packaging. "Paint Thinner" does not include any of the following products:
 - (A) "Artist's Solvent/Thinner;"
 - (B) products that are sold in containers with a capacity of 5 gallons or more and labeled exclusively for the thinning of Industrial Maintenance Coatings, Zinc-Rich Primers, or High Temperature Coatings;
 - (C) products labeled and used exclusively as an ingredient in a specific coating or coating brand line, whereby the coating would not be complete or useable without the specific ingredient;

- (D) products that meet both of the following criteria:
 - (1) the Principle Display Panel of the product displays, in a font size as large as, or larger than, the font size of all other words on the panel, language that the product is used exclusively for the thinning of Industrial Maintenance Coatings, Zinc-Rich Primers, or High Temperature Coatings, and
 - (2) no representation is made anywhere on the product container or packaging, or any label or sticker attached thereto, that the product is suitable for use or may be used for any other purpose except the thinning of Industrial Maintenance Coatings, Zinc-Rich Primers, or High Temperature Coatings.
- (116) "Penetrant" means a lubricant designed or labeled primarily to loosen metal parts that have bonded together due to rusting, oxidation, or other causes. "Penetrant" does not include "Multi-purpose Lubricant" that claim to have penetrating qualities, but are not labeled primarily to loosen bonded parts.
- (117) "Person" shall have the same meaning as defined in Health and Safety Code Section 39047.
- (118) "Personal Fragrance Product" means any product which is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including, but not limited to, cologne, perfume, aftershave, toilet water, lotion, powder, body mist, and body spray. "Personal Fragrance Product" does not include: (A) Deodorant, as defined in section 94501(d); (B) medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; (C) mouthwashes, breath fresheners and deodorizers; (D) lotions, moisturizers, powders or other skin care products designed or labeled to be used primarily to alleviate skin conditions such as dryness and irritations; (E) products designed exclusively to be applied to human genitalia areas, undergarments, and any paper products, napkins or other products that are affixed to undergarments, such as sanitary pads; (F) soaps, shampoos, and products primarily used to clean the human body; and (G) fragrance products designed to be used exclusively on non-human animals.
- (119) "Pesticide" means and includes any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling or mitigating any pest, or any substance or mixture of substances labeled, designed, or intended for use as a defoliant, desiccant, or plant regulator, provided that the term "pesticide" will not include any substance, mixture of substances, or device which the United States Environmental Protection Agency does not consider to be a pesticide.
- (120) "Pressurized Gas Duster" means a pressurized product labeled to remove dust

from a surface solely by means of mass air or gas flow, including surfaces such as photographs, photographic film negatives, computer keyboards, and other types of surfaces that cannot be cleaned with solvents. "Pressurized Gas Duster" does not include "Dusting Aid," "General Purpose Cleaner," "Electrical Cleaner," "Electronic Cleaner," "Energized Electrical Cleaner," or "Anti-Static Product." Pressurized Gas Duster does not include products labeled exclusively to remove dust from equipment where dust removal is accomplished when: electric current exists; residual electrical potential from a component such as a capacitor exists; or an open flame exists, as long as the "Principal Display Panel" clearly displays the statement: "Energized Equipment use only."

- (121) "Principal Display Panel or Panels" means that part, or those parts of a label that are so designed as to most likely be displayed, presented, shown or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements pertaining to the "principal display panel" shall pertain to all such "principal display panels."
- (122) "Product Brand Name" means the name of the product exactly as it appears on the principal display panel of the product.
- (123) "Product Category" means the applicable category which best describes the product as listed in this Section 94508.
- (124) "Product Form," for the purpose of complying with Section 94513 only, means the applicable form which most accurately describes the product's dispensing form as follows:

A = Aerosol Product

S = Solid

P = Pump Spray

L = Liquid

SS = Semisolid

O = Other

- (125) "Propellant" means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.
- (126) "Pump Spray" means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.
- (127) "Responsible Party" means the company, firm or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was "manufactured for" or "distributed by," as noted on the label.

- (128) "Restricted Materials" means pesticides established as restricted materials under Title 3, California Code of Regulations, section 6400.
- (129) "Retailer" means any person who sells, supplies, or offers consumer products for sale directly to consumers.
- (130) "Retail Outlet" means any establishment at which consumer products are sold, supplied, or offered for sale directly to consumers.
- (131) "Rubber/Vinyl Protectant" means:
 - (A) for products manufactured before December 31, 2008: any product designed to protect, preserve or renew vinyl, rubber, and plastic on vehicles, tires, luggage, furniture, and household products such as vinyl covers, clothing, and accessories. "Rubber/Vinyl Protectant" does not include products primarily designed to clean the wheel rim, such as aluminum or magnesium wheel cleaners, and tire cleaners that do not leave an appearance-enhancing or protective substance on the tire.
 - (B) for products manufactured on or after December 31, 2008: any product labeled to protect, preserve or renew vinyl, or rubber on vehicles, tires, luggage, furniture, and/or household products such as vinyl covers, clothing, or accessories. "Rubber/Vinyl Protectant" does not include: products labeled to clean the wheel rim, such as aluminum or magnesium wheel cleaners; tire cleaners that do not leave an appearance-enhancing or protective substance on the tire; pigmented products designed or labeled to be used primarily for coloring; products used for construction, reconstruction, modification, structural maintenance or repair of rubber or vinyl substrates; or products, other than those labeled to be used on vehicle tires, qualifying as either "Clear Coating" or "Vinyl/Fabric/Leather/Polycarbonate Coating" under section 94521(a).
- (132) "Rubbing Alcohol" means any product containing isopropyl alcohol (also called isopropanol) or denatured ethanol and labeled for topical use, usually to decrease germs in minor cuts and scrapes, to relieve minor muscle aches, as a rubefacient, and for massage.
- (133) "Sanitizer" means a product that is labeled as a "sanitizer," or is labeled to reduce, but not necessarily eliminate, microorganisms in the air, on surfaces, or on inanimate objects, and whose label is registered as a "sanitizer" under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; 7 U.S.C. section 136 et seq.). Products that are labeled as both a "sanitizer" and a "disinfectant" are considered disinfectants. "Sanitizer" does not include (A) "Disinfectant," (B) products labeled solely for use on humans or animals, (C) products labeled solely for agricultural use, (D) products labeled solely for use in swimming pools, therapeutic tubs, or hot tubs, (E) products which are labeled to be used on heat

- sensitive critical or semi-critical medical devices or medical equipment surfaces, (F) products which are pre-moistened wipes or towelettes sold exclusively to medical, convalescent or veterinary establishments (G) products which are labeled to be applied to food-contact surfaces and are not required to be rinsed prior to contact with food, or (H) products which are labeled as "Bathroom and Tile Cleaner," "Glass Cleaner," "General Purpose Cleaner," "Toilet/Urinal Care Product," "Metal Polish," "Carpet Cleaner," or "Fabric Refresher" that may also make sanitizing or anti-microbial claims on the label.
- (134) "Sealant or Caulking Compound" means any product with adhesive properties that is designed to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. "Sealant or Caulking Compound" does not include roof cements and roof sealants; insulating foams; removable caulking compounds; clear/paintable/water resistant caulking compounds; floor seam sealers; products designed exclusively for automotive uses; or sealers that are applied as continuous coatings. "Sealant or Caulking Compound" also does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces. For the purposes of this definition only:

"Removable caulking compounds" means a compound which temporarily seals windows or doors for three to six month time intervals.

"Clear/paintable/water resistant caulking compounds" means a compound which contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through the caulk when cured; is paintable; and is immediately resistant to precipitation upon application.

"Sealant or Caulking Compound" is divided into two subcategories:

- (A) "Chemically Curing Sealant or Caulking Compound" means any "Sealant or Caulking Compound" which achieves its final composition and physical form through a chemical curing process, where product ingredients participate in a chemical reaction in the presence of a catalyst that causes a change in chemical structure and leads to the release of chemical byproducts. "Chemically Curing Sealant or Caulking Compound" includes, but is not limited to, products that utilize silicone, polyurethane, silyl-terminated polyether, or silyl-terminated polyurethane reactive chemistries. "Chemically Curing Sealant or Caulking Compound" does not include products which are not solely dependent on a chemically curing process to achieve the cured state.
- (B) "Non-Chemically Curing Sealant or Caulking Compound" means any "Sealant or Caulking Compound" not defined under "Chemically Curing Sealant or Caulking Compound."
- (135) "Semisolid" means a product that, at room temperature, will not pour, but will spread or deform easily, including but not limited to gels, pastes, and greases.

- (136) "Shaving Cream" means an aerosol product which dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system, in the removal of facial or other bodily hair. "Shaving Cream" does not include "Shaving Gel."
- (137) "Shaving Gel" means an aerosol product which dispenses a post-foaming semi-solid designed to be used with a blade, cartridge razor, or other shaving system in the removal of facial or other bodily hair. "Shaving Gel" does not include "Shaving Cream."
- (138) "Silicone-based Multi-purpose Lubricant" means any lubricant which is:
 - (A) designed and labeled to provide lubricity primarily through the use of silicone compounds including, but not limited to, polydimethylsiloxane, and
 - (B) designed and labeled for general purpose lubrication, or for use in a wide variety of applications. "Silicone-based Multi-purpose Lubricant" does not include products designed and labeled exclusively to release manufactured products from molds.
- (139) "Single Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in a single homogeneous phase and which does not require that the product container be shaken before use.
- (140) "Solid" means a substance or mixture of substances which, either whole or subdivided (such as the particles comprising a powder), is not capable of visually detectable flow as determined under ASTM D-4359-90 (May 25, 1990) Standard Test Method for Determining Whether a Material Is a Liquid or a Solid, which is incorporated by reference herein.
- (141) "Special Purpose Spray Adhesive" means an aerosol adhesive that meets any of the following definitions:
 - (A) "Mounting Adhesive" means an aerosol adhesive designed to permanently mount photographs, artwork, and any other drawn or printed media to a backing (paper, board, cloth, etc.) without causing discoloration to the artwork.
 - (B) "Flexible Vinyl Adhesive" means an aerosol adhesive designed to bond flexible vinyl to substrates. Flexible vinyl means a nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content. A plasticizer is a material, such as a high boiling point organic solvent, that is incorporated into a vinyl to increase its flexibility, workability, or distensibility, and may be determined using ASTM Method E260-91 (Jan. 25, 1991) Standard Practice for Packed Column Gas Chromatography, which is

incorporated by reference herein, or from product formulation data.

- (C) "Polystyrene Foam Adhesive" means an aerosol adhesive designed to bond polystyrene foam (e.g. Styrofoam®, expanded polystyrene foam, etc.) to substrates.
- (D) "Automobile Headliner Adhesive" means an aerosol adhesive designed to bond together layers in motor vehicle headliners.
- (E) "Polyolefin Adhesive" means an aerosol adhesive designed to bond polyolefins (e.g. polyethylene, polypropylene, etc.) to substrates.
- (F) "Laminate Repair/Edgebanding Adhesive" means an aerosol adhesive designed for:
 - 1. the touch-up or repair of items laminated with high pressure laminates (e.g. lifted edges, delaminations, etc.), or for
 - 2. the touch-up, repair, or attachment of edgebanding materials, including, but not limited to, other laminates, synthetic marble, veneers, wood moulding, and decorative metals.

For the purposes of this definition "high pressure laminate" means sheet materials which consist of paper, fabric, or other core material that have been laminated at temperatures exceeding 265 degrees F, and at pressures between 1,000 and 1,400 psi.

- (G)"Automotive Engine Compartment Adhesive" means an aerosol adhesive designed for use in motor vehicle under-the-hood applications which require oil and plasticizer resistance, as well as high shear strength, at temperatures of 200-275° F.
- (142) "Spot Remover" means any product labeled to clean localized areas, or remove localized spots or stains on cloth or fabric such as drapes, carpets, upholstery, or clothing, that does not require subsequent laundering to achieve stain removal. "Spot Remover" does not include "Dry Cleaning Fluid," "Laundry Prewash," or aerosol products labeled solely for gum removal.
- (143) "Spray Buff Product" means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.
- (144) "Table B Compound" means any carbon-containing compound listed as an exception to the definition of VOC in Section 94508.
- (145) "Temporary Hair Color" means any product that applies color, glitter, or UV-active pigments to hair, wigs, or fur and is removable when washed. "Temporary Hair Color" includes hair color mousses and products labeled

- to add texture or thickness to cover thinning/balding areas. "Temporary Hair Color" does not include "Hair Spray," "Hair Styling Product," or "Hair Mousse."
- (146) "Terrestrial" means to live on or grow from land.
- (147) "Tire or Wheel Cleaner" means a product designed or labeled exclusively to clean either tires, wheels, or both. "Tire or Wheel Cleaner" includes, but is not limited to, products for use in commercial, fleet, hand, and "drive-through" car washes; commercial truck washing or large vehicle washing stations; vehicle dealers and repair shops, as well as household consumer products. "Tire or Wheel Cleaner" does not include products labeled for use exclusively on locomotives or aircraft.
- (148) "Tire Sealant and Inflator" means any pressurized product that is designed to temporarily inflate and seal a leaking tire.
- (149) "Toilet/Urinal Care Product" means any product designed or labeled to clean and/or to deodorize toilet bowls, toilet tanks, or urinals. Toilet bowls, toilet tanks, or urinals includes, but is not limited to, toilets or urinals connected to permanent plumbing in buildings and other structures, portable toilets or urinals placed at temporary or remote locations, and toilet or urinals in vehicles such as buses, recreational motor homes, boats, ships, and aircraft. "Toilet/Urinal Care Product" does not include "Bathroom and Tile Cleaner" or "General Purpose Cleaner."
- (150) "Type A Propellent" means a compressed gas such as CO₂, N₂, N₂O, or compressed air which is used as a propellent, and is either incorporated with the product or contained in a separate chamber within the product's packaging.
- (151) "Type B Propellent" means any halocarbon which is used as a propellent including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs).
- (152) "Type C Propellent" means any propellent which is not a Type A or Type B propellent, including propane, isobutane, n-butane, and dimethyl ether (also known as dimethyl oxide).
- (153) "Undercoating" means any aerosol product designed to impart a protective, non-paint layer to the undercarriage, trunk interior, and/or firewall of motor vehicles to prevent the formation of rust or to deaden sound. "Undercoating" includes, but is not limited to, rubberized, mastic, or asphaltic products.
- (154) "Usage Directions" means the text or graphics on the product's principal display panel, label, or accompanying literature which describes to the end user how and in what quantity the product is to be used.

- (155) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
 - (A) methane, methylene chloride (dichloromethane), 1,1,1-trichloroethane (methyl chloroform), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115). chlorodifluoromethane (HCFC-22), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), trifluoromethane (HFC-23), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), pentafluoroethane (HFC-125), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), ethoxy-nonafluorobutane (HFE 7200), cyclic, branched, or linear completely methylated siloxanes, the following classes of perfluorocarbons:
 - 1. cyclic, branched, or linear, completely fluorinated alkanes;
 - 2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 - 3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 - 4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and
 - (B) the following low-reactive organic compounds which have been exempted by the U.S. EPA:

```
acetone,
ethane,
methyl acetate,
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene),
perchloroethylene (tetrachloroethylene).
```

(156) "VOC Content" means the total weight of VOC in a product expressed as a

- percentage of the product weight (exclusive of the container or packaging), as determined pursuant to sections 94515(a) and (b).
- (157) "Wasp and Hornet Insecticide" means any insecticide product that is designed for use against wasps, hornets, yellow jackets or bees by allowing the user to spray from a distance a directed stream or burst at the intended insects, or their hiding place.
- (158) "Waterproofer" means a product designed and labeled exclusively to repel water from fabric or leather substrates. "Waterproofer" does not include "Fabric Protectant."
- (159) "Wax" means a material or synthetic thermoplastic substance generally of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol and high polymers (plastics). "Wax" includes, but is not limited to, substances derived from the secretions of plants and animals such as carnuba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin, and synthetic polymers such as polyethylene.
- (160) "Web Spray Adhesive" means any aerosol adhesive which is not a "Mist Spray Adhesive" or "Special Purpose Spray Adhesive."
- (161) "Windshield Water Repellent" means a product designed or labeled exclusively to repel water from motor vehicle exterior automotive glass surfaces. "Windshield Water Repellent" does not include "Automotive Windshield Washer Fluid."
- (162) "Wood Cleaner" means a product labeled to clean wooden materials including but not limited to decking, fences, flooring, logs, cabinetry, and furniture. "Wood Cleaner" does not include "Dusting Aid," General Purpose Cleaner," "Furniture Maintenance Product," "Floor Wax Stripper," "Floor Polish or Wax," or products designed and labeled exclusively to preserve or color wood.
- (163) "Zinc-Rich Primer" means a coating that meets all the following specifications: (A) coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and (B) coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and (C) coating is intended for professional use only and labeled "For Professional Use Only;" "For Industrial Use Only;" "Not for residential use;" or "Not intended for residential use."

NOTE: Authority cited: Sections 38501, 38510, 38560, 38560.5, 38562, 38580, 39601 and 41712, Health and Safety Code. Reference: Sections 38501, 38510, 38560, 38560.5, 38562, 38580, 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94509. Standards for Consumer Products.

(a) Except as provided in Sections 94510 (Exemptions), 94511 (Innovative Products), 94514 (Variances), 94540 through 94555 (Alternative Control Plan), and 94567(a)(1) (Hairspray Credit Program), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, or manufacture for sale in California any consumer product which, at the time of sale or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards after the specified effective dates.

Table of Standards Percent Volatile Organic Compound by Weight

Product Category	Effective Date 1	VOC Standard ²
Adhesive *: Aerosol**	1/1/95	75
Mist Spray Adhesive**	1/1/2002	65
Web Spray Adhesive**	1/1/2002	55
Special Purpose Spray Adhesive** Mounting, Automotive Engine Compartment, and Flexible Vinyl Adhesive Polystyrene Foam and Automobile Headliner Adhesive Polyolefin and Laminate Repair/Edgebanding Adhesive ====================================	1/1/2002 1/1/2002 1/1/2002 =======	70 65 60
[**See 94509(i), 94512(d), and 94513(d) for additional requirements that apply to aerosol adhesive.]		
Construction, Panel, and Floor Covering#	1/1/95 12/31/2002 12/31/2008	40 15 7
[#See section 94509(k) for the effective date of the VOC limit for certain types of "Construction, Panel, and Floor Covering Adhesive, and section 94509(p) for additional requirements that apply to Construction, Panel, and Floor Covering Adhesive.]	=======	
Contact## Contact Adhesive – General Purpose Contact Adhesive – Special Purpose	1/1/95 12/31/2006 12/31/2006	80 55 80

[##See sections 94509(m) and 94512(d) for additional requirements that apply to Contact Adhesive.]		
General Purpose	1/1/95	10
*See section 94510(i) for an exemption that applies to adhesives sold in containers of one fluid ounce or less.		
Adhesive Remover*: Floor or Wall Covering Adhesive Remover	12/31/2006	5
Gasket or Thread Locking Adhesive Remover	12/31/2006	50
General Purpose Adhesive Remover	12/31/2006	20
Specialty Adhesive Remover	12/31/2006	70
[*See sections 94509(n) and 94512(d) for additional requirements that apply to Adhesive Remover.]		
Aerosol Cooking Spray	1/1/95	18
Air Freshener*: Double Phase Aerosol [*See section 94509(t) for additional requirements that apply to Double Phase Aerosol Air Freshener.]	1/1/93 12/31/2004 12/31/2012	30 25 20
Single Phase Aerosol	1/1/93 1/1/96	70 30
Dual Purpose Air Freshener/Disinfectant aerosol	1/1/94	60
liquid/pump spray	1/1/93	18
solid/semisolid	1/1/93	3
[*See sections 94510(f) and 94510(g)(2) for exemptions that apply to certain Air Fresheners, and 94509(o) for additional requirements that apply to Air Freshener.]		
Anti-static Product: aerosol	12/31/2008	80
non-aerosol	12/31/2006	11
Astringent/Toner (Non-FDA regulated)	12/31/2010	35
Automotive Rubbing or Polishing Compound	1/1/2005	17

Automotive Wax/Polish/Sealant/Glaze:		
all other forms	1/1/2005	15
hard paste wax	1/1/2005	45
instant detailer	1/1/2001	3
Automotive Windshield Washer Fluid: Type "A" areas*	1/1/93 12/31/2008	35 25
All other areas**	1/1/93 12/31/2002	10 1
**See section 94508(a)(19), section 94508(a)(20), and section 94509(l) for provisions that apply to Automotive Windshield Washer Fluid.		
* Type "A" areas include only the following: Del Norte, Shasta and Trinity Counties; the Great Basin Valley, Lake Tahoe, Mountain Counties, and Northeast Plateau Air Basins, as defined in Title 17, California Code of Regulations, Sections 60105, 60108, 60111, and 60113.		
Bathroom and Tile Cleaner*: aerosol	1/1/94	7
all other forms	1/1/94	5
non-aerosol	12/31/2008	1
[*See section 94509(p) for additional requirements that apply to Bathroom and Tile Cleaner.]		
Brake Cleaner	1/1/97 12/31/2002 12/31/2008 12/31/2010	50 45 20 10
Bug and Tar Remover	1/1/2002	40
Carburetor or Fuel-injection Air Intake Cleaner *	1/1/95 12/31/2002 12/31/2008 12/31/2010	75 45 20 10
*See section 94509(k) for the effective date of the VOC limit for Carburetor or Fuel-injection Air Intake Cleaner.		=

O		
Carpet /Upholstery Cleaner*:		
aerosol	1/1/2001	7
	12/31/2010	5
non-aerosol (dilutable)	1/1/2001	0.1
non-aerosol (ready-to-use)	1/1/2001	3
Tion derosor (ready to doe)	12/31/2010	1
	12/31/2010	
[*O = = = = tion O4500(=) for a dditional requirement.		
[*See section 94509(q) for additional requirements		
that apply to Carpet/Upholstery Cleaner]		
Charcoal Lighter Material	See Section	
	94509(h)	
Disinfectant:		
aerosol	12/31/2008	70
non-aerosol	12/31/2008	1
Dusting Aid:	12/01/2000	'
	1/1/05	25
aerosol	1/1/95	35
	1/1/97	25
	12/31/2010	17
non-aerosol	1/1/95	7
	12/31/2010	3
Electrical Cleaner*	12/31/2006	45
=======================================	========	=======
[*See sections 94509(n) and 94512(d) for additional		
requirements that apply to Electrical Cleaner.]		
l learnements that apply to Electrical Oleaner.		
Electronic Cleaner*	12/31/2007	75
	========	========
[*See sections 94509(m) and 94512(d) for additional		
requirements that apply to Electronic Cleaner.]		
	1/1/02	75
Engine Degreaser:	1/1/93	75 50
	1/1/96	50
aerosol	12/31/2004	35
	12/31/2010	10
non-aerosol	12/31/2004	5
-		

Fabric Protectant* aerosol	1/1/95 1/1/97	75 60
non-aerosol	1/1/95 1/1/97 12/31/2010	75 60 1
[*See section 94509(q) for additional requirements that apply to Fabric Protectant]	========	=======
Fabric Refresher: aerosol	12/31/2006	15
non-aerosol	12/31/2006	6
Fabric Softener – Single Use Dryer Product	See Section 94509(s)	
Floor Maintenance Product	12/31/2010	1
Floor Polish or Wax: Resilient Flooring Material	1/1/94 12/31/2010	7 1
Nonresilient Flooring Material	1/1/94 12/31/2010	10 1
Wood Floor Wax	1/1/94 12/31/2010	90 70
Floor Wax Stripper: non-aerosol	See Section 94509(j)	
Footwear or Leather Care Product*: aerosol	12/31/2006	75
solid	12/31/2006	55
all other forms	12/31/2006	15
[*See section 94509(m) for additional requirements that apply to Footwear or Leather Care Product.]		
Furniture Maintenance Product: aerosol	1/1/94 12/31/2004	25 17
all other forms (except solid/paste forms)	1/1/94	7
non-aerosol (except solid/paste forms)	12/31/2008	3

General Purpose Cleaner*:		
aerosol and non-aerosol	1/1/94	10
aerosol	12/31/2008	8
non-aerosol	12/31/2004	4
[*See section 94509(p) for additional requirements that apply to General Purpose Cleaner.]		
General Purpose Degreaser*:		
aerosol	1/1/2002	50
	12/31/2008	20
	12/31/2010	10
non-aerosol	12/31/2004	4
[*See section 94509(m) for additional requirements that apply to General Purpose Degreaser.]		
Glass Cleaner:		
aerosol	1/1/93	12
	12/31/2012	10
non-aerosol	1/1/93	8
nen derees	1/1/96	6
	12/31/2004	4
Graffiti Remover*:		
aerosol	12/31/2006	50
non-aerosol	12/31/2006	30
=======================================	========	=======
[*See section 94509(n) for additional requirements		
that apply to Graffiti Remover.]		
Hair Mousse	1/1/94	16
	12/31/2002	6
Hair Shine	1/1/2005	55
Hair Spray	1/1/93	80
	6/1/99	55
Hair Styling Gel	1/1/94	6
Hair Styling Product:		_
aerosol and pump spray	12/31/2006	6
all other forms	12/31/2006	2
Heavy-duty Hand Cleaner or Soap	1/1/2005	8
Insect Repellent:		
aerosol	1/1/94	65

Insecticide*:	1	
Crawling Bug Insecticide (all forms):	1/1/95 1/1/98	40 20
aerosol	12/31/2004	15
Flea and Tick Insecticide	1/1/95	25
Flying Bug Insecticide (all forms):	1/1/95	35
aerosol	12/31/2003	25
Fogger	1/1/95	45
Lawn and Garden Insecticide (all forms)	1/1/95	20
non-aerosol	12/31/2003	3
Wasp and Hornet Insecticide	1/1/2005	40
*See sections 94510(g)(1) and 94510(k) for exemptions that apply to certain insecticides.		
Laundry Prewash:		
aerosol/solid	1/1/94	22
all other forms	1/1/94	5
Laundry Starch/Sizing/Fabric Finish Product:	1/1/95	5
Lauriary Starting about 1 month roduct.	12/31/2008	4.5
Metal Polish/Cleanser	1/1/2005	30
Motor Vehicle Wash	17172000	- 50
non-aerosol	12/31/10	0.2
Multi-purpose Lubricant:	1/1/2003	50
(excluding solid or semisolid products)	12/31/2013	25
(excluding solid of serinsolid products)	12/31/2015	10
	=========	========
[*See sections 94509(q) and 94513(f) for additional		
requirements that apply to Multi-purpose Lubricant]		
Multi-purpose Solvent*	12/31/2010	30
parpood dorront	12/31/2013	3
=======================================	=========	=======
[*See sections 94509(u), 94512(e), and 94513(g) for additional requirements that apply to Multi-purpose Solvent.]		

Nail Polish Remover	1/1/94	85
Trail Folish Removes	1/1/96	75
	12/31/2004	0
	12/31/2007	1
Non-selective Terrestrial Herbicide:	12/01/2001	•
non-aerosol	1/1/2002	3
Odor Remover/Eliminator		•
aerosol	12/31/2010	25
non-aerosol	12/31/2010	6
Oven Cleaner*:		_
aerosol/pump spray	1/1/93	8
liquid	1/1/93	5
non-aerosol (including pump spray and liquid)	12/31/2008	1
[*See section 94509(p) for additional requirements		
that apply to Oven Cleaner.]		
Paint Remover or Stripper	1/1/2005	50
Paint Thinner*	12/31/2010	30
	12/31/2013	3
	=========	=======
[*See sections 94509(u), 94510(m), 94512(e), and		
94513(g) for additional requirements that apply to		
Paint Thinner.]		
Penetrant*	1/1/2003	50
	12/31/2013	25
	========	=======
[*See section 94509(q) and 94513(f) for additional		
requirements that apply to Penetrant]		
Personal Fragrance Product*:	4/4/05	00
products with 20% or less fragrance	1/1/95	80
	1/1/99	75
products with more than 200/ fragrance	1/1/95	70
products with more than 20% fragrance	1/1/95	65
	1/1/99	00
*See sections 94510(h), 94510(j), and 94510(l) for		
exemptions and requirements that apply to Personal		
Fragrance Product.		
Pressurized Gas Duster*	12/31/2010	1
=======================================	=========	
[*See section 94509(r) and 94510(c) for additional		
provisions that apply to Pressurized Gas Duster]		
	I.	1

Rubber /Vinyl Protectant:		
aerosol	1/1/2005	10
non-aerosol	1/1/2003	3
Sanitizer:		
aerosol	12/31/2008	70
non-aerosol	12/31/2008	1
Sealant or Caulking Compound* all forms	12/31/2002	4
Chemically Curing non-aerosol	12/31/2012	3
Non-chemically Curing non-aerosol	12/31/2010	1.5
[*See sections 94509(q) and 94512(d) for additional requirements that apply to Sealant or Caulking Compound]		
Shaving Cream	1/1/94	5
Shaving Gel	12/31/2006 12/31/2009	7 4
Silicone-based Multi-purpose Lubricant: (excluding solid or semisolid products)	1/1/2005	60
Spot Remover*:	4/4/0004	0.5
aerosol	1/1/2001 12/31/2010	25 15
non-aerosol	1/1/2001 12/31/2010	8 3
[*See section 94509(q) for additional requirements that apply to Spot Remover]	========	=======
Temporary Hair Color: aerosol	12/31/2010	55
Tire or Wheel Cleaner aerosol	12/31/2010	8
non-aerosol	12/31/2010	2
Tire Sealant and Inflator	12/31/2002	20

Toilet/Urinal Care Product:* aerosol	12/31/2006	10
non-aerosol	12/31/2006	3
[*See section 94509(o) for additional requirements that apply to Toilet/Urinal Care Product]		
Undercoating:	4/4/0000	10
aerosol	1/1/2002	40
Windshield Water Repellent	12/31/2010	75
Wood Cleaner: aerosol	12/31/2006	17
non-aerosol	12/31/2006	4

See section 94509(d) for the effective date of the VOC standards for products registered under FIFRA, and section 94509(c) and (d) for the "sell-through" allowed for products manufactured prior to the effective date of standards.

(b) Products that are diluted prior to use

- (1) Except for "Automotive Windshield Washer Fluid (Dilutable)," for consumer products for which the label, packaging, or accompanying literature specifically states that the product should be diluted with water or non-VOC solvent prior to use, the limits specified in subsection (a) shall apply to the product only after the minimum recommended dilution has taken place. For purposes of this subsection (b), "minimum recommended dilution" shall not include recommendations for incidental use of a concentrated product to deal with limited special applications such as hard-to-remove soils or stains.
- (2) For consumer products for which the label, packaging, or accompanying literature states that the product should be diluted with any VOC solvent prior to use, the limits specified in subsection (a) shall apply to the product only after the maximum recommended dilution has taken place.
- (3) For "Automotive Windshield Washer Fluid (Dilutable)" for which the front panel of the product label specifically states that the product should be diluted (e.g. identified as a "concentrate") prior to use;
 - (A) the VOC limits specified in section 94509(a) shall apply to the product only after the minimum recommended dilution has taken place;
 - (B) for the purpose of complying with the VOC limits specified in section 94509(a), different dilution instructions for "Type A areas" and other areas of California may be specified on the product label if the dilution instructions meet the

See section 94510(c) for an exemption that applies to fragrances in consumer products, and section 94510(d) for an exemption that applies to LVP-VOCs.

following criteria:

- 1. The instructions are readily visible, and
- 2. The instructions can be easily understood by the consumer, and
- 3. The instructions clearly specify the recommended dilutions to apply in "Type A areas" and in other areas of California, and

If the dilution instructions specified on the product label meet these criteria, the VOC limits specified in section 94509(a) shall apply to the product only after the minimum recommended dilution has taken place for the area in which the product is sold, supplied, or offered for sale.

- (4) For products sold in pump spray containers, the VOC limits specified in section 94509(a) shall apply to the product prior to any minimum recommended dilution.
- (c) Sell-through of products.
 - (1) Sell-through period. Notwithstanding the provisions of Section 94509(a) or 94509(j), a consumer product manufactured prior to each of the effective dates specified for that product in the Table of Standards may be sold, supplied, or offered for sale for up to three years after each of the specified effective dates. This subsection (c) does not apply to:
 - (A) any consumer product that does not display on the product container or package the date on which the product was manufactured, or a code indicating such date, or
 - (B) any consumer product on which the manufacturer has used a code indicating the date of manufacture that is different than the code specified in section 94512(b)(2), but an explanation of the code has not been filed with the ARB Executive Officer by the deadlines specified in section 94512(c)(1) or section 94512(c)(2), or
 - (C) Solid "Air Fresheners" and "Toilet/Urinal Care Product" that contain paradichlorobenzene; these products are subject to the one-year sell-through period specified in section 94509(o).
 - (D) Products contained in multi-unit packages, as specified below:
 - Subsection (c)(1) does not apply to any individual consumer products unit contained within a multi-unit package that is produced or assembled after January 1, 2006, where the multi-unit package does not display the date(s) or date-code(s) of the individual product units, or display the date of assembly, such that the displayed information is not readily observable

- without irreversibly disassembling any portion of the container or packaging.
- 2. For the purposes of this section, "date of assembly" means the date that the individual product units are assembled into the finished multi-unit package.
- 3. For multi-unit packages that display the "date of assembly" instead of the date(s) or date-code(s) of the individual product units, the "date of assembly" shall be the "date of manufacture" for all of the product units contained within the multi-unit package. In other words, all of the product units shall be deemed to have been manufactured on the date these units are assembled into the multi-unit package, even if the individual product units show different date(s) or date-code(s).
- (2) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product subject to the Table of Standards in section 94509 must notify the purchaser of the product in writing of the date on which the sell-through period for that product will end, provided, however, that this notification must be given only if all of the following conditions are met:
 - (A) the product is being sold or supplied to a distributor or retailer;
 - (B) the sell-through period for the product will expire 6 months or less from the date the product is sold or supplied;
 - (C) the product does not comply with the lowest VOC standard that applies on the date the sell-through period ends; and
 - (D) the product is subject to a VOC standard with an effective date on or after December 31, 2004.
- (d) Products registered under FIFRA. For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA; 7 U.S.C. Section 136-136y), the effective date of the VOC standards specified in subsection (a) is one year after the date specified in the Table of Standards. For those consumer products that are registered under FIFRA, the three year period provided in subsection (c) shall also begin one year after the date specified in the Table of Standards.
- (e) Products containing ozone-depleting compounds. For any consumer product for which VOC standards are specified under subsection (a), no person shall sell, supply, offer for sale, or manufacture for sale in California any consumer product which contains any of the following ozone-depleting compounds:

```
CFC-11 (trichlorofluoromethane),
```

CFC-12 (dichlorodifluoromethane),

CFC-113 (1,1,1-trichloro-2,2,2-trifluoroethane).

CFC-114 (1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane),

CFC-115 (chloropentafluoroethane), halon 1211 (bromochlorodifluoromethane),

halon 1301 (bromotrifluoromethane), halon 2402 (dibromotetrafluoroethane),

HCFC-22 (chlorodifluoromethane),

HCFC-123 (2,2-dichloro-1,1,1-trifluoroethane),

HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane),

HCFC-141b (1,1-dichloro-1-fluoroethane),

HCFC-142b (1-chloro-1,1-difluoroethane), 1,1,1-trichloroethane, and carbon tetrachloride.

- (f) The requirements of section 94509 (e) shall not apply to any existing product formulation that complies with the Table of Standards or any existing product formulation that is reformulated to meet the Table of Standards, provided the ozone depleting compound content of the reformulated product does not increase.
- (g) The requirements of section 94509 (e) shall not apply to any ozone depleting compounds that may be present as impurities in a consumer product in an amount equal to or less than 0.01% by weight of the product.
- (h) Requirements for charcoal lighter materials. The following requirements shall apply to all charcoal lighter material products as defined in section 94508(a):
 - (1) Regulatory Standards
 - (A) In all areas of California except the South Coast Air Quality Management District, no person shall sell, supply, or offer for sale after January 1, 1993 any charcoal lighter material product unless at the time of the transaction:
 - 1. the manufacturer or distributor of the charcoal lighter material has been issued a currently effective certification pursuant to subsection (h)(2).
 - 2. the charcoal lighter material meets the formulation criteria and other conditions specified in the applicable Executive Order issued pursuant to subsection (h)(2).
 - 3. the product usage directions for the charcoal lighter material are the same as those provided to the Executive Officer pursuant to subsection (h)(2)(C).
 - (B) In the South Coast Air Quality Management District, the regulatory standards specified in subsection (h)(1)(A) shall be applicable upon the effective date of this subsection.
 - (2) Certification Requirements

- (A) No charcoal lighter material formulation shall be certified under this subsection unless the applicant for certification demonstrates to the Executive Officer's satisfaction that the VOC emissions from the ignition of charcoal with the charcoal lighter material are less than or equal to 0.020 pound of VOC per start, using the procedures specified in the South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol, dated February 27, 1991 (the "SCAQMD Rule 1174 Testing Protocol"). The provisions relating to LVP-VOC in sections 94508(a) and 94510(d) shall not apply to any charcoal lighter material subject to the requirements of sections 94509(a) and (h).
- (B) The Executive Officer may approve alternative test procedures which are shown to provide equivalent results to those obtained using the SCAQMD Rule 1174 Testing Protocol.
- (C) A manufacturer or distributor of charcoal lighter material may apply to the Executive Officer for certification of a charcoal lighter material formulation in accordance with this subsection (h)(2). The application shall be in writing and shall include, at a minimum, the following:
 - 1. the results of testing conducted pursuant to the procedures specified in SCAQMD Rule 1174 Testing Protocol.
 - 2. the exact text and/or graphics that will appear on the charcoal lighter material's principal display panel, label, and any accompanying literature. The provided material shall clearly show the usage directions for the product. These directions shall accurately reflect the quantity of charcoal lighter material per pound of charcoal that was used in the SCAQMD Rule 1174 Testing Protocol for that product, unless:
 - the charcoal lighter material is intended to be used in fixed amounts independent of the amount of charcoal used, such as certain paraffin cubes, or
 - ii) the charcoal lighter material is already incorporated into the charcoal, such as certain "bag light," "instant light," or "match light" products.
 - For a charcoal lighter material which meets the criteria specified in subsection (h)(2)(C)(2.)(i), the usage instructions provided to the Executive Officer shall accurately reflect the quantity of charcoal lighter material used in the SCAQMD Rule 1174 Testing Protocol for that product.
 - 4. Any physical property data, formulation data, or other information required by the Executive Officer for use in determining when a product

modification has occurred and for use in determining compliance with the conditions specified on the Executive Order issued pursuant to section (h)(2).

- (D) Within 30 days of receipt of an application, the Executive Officer shall advise the applicant in writing either that it is complete or that specified additional information is required to make it complete. Within 30 days of receipt of additional information, the Executive Officer shall advise the applicant in writing either that the application is complete, or that specified additional information or testing is still required before it can be deemed complete.
- (E) If the Executive Officer finds that an application meets the requirements of this subsection (h)(2), then he or she shall issue an Executive Order certifying the charcoal lighter material formulation and specifying such conditions as are necessary to insure that the requirements of this subsection (h) are met. The Executive Officer shall act on a complete application within 90 days after the application is deemed complete.

(3) Notice of Modifications

For any charcoal lighter material for which certification has been granted pursuant to subsection (h)(2), the applicant for certification shall notify the Executive Officer in writing within 30 days of: (i) any change in the usage directions, or (ii) any change in product formulation, test results, or any other information submitted pursuant to subsection (h)(2) which may result in VOC emissions greater than 0.020 pound of VOC per start.

(4) Revocation of Certification

If the Executive Officer determines that any certified charcoal lighter material formulation results in VOC emissions from the ignition of charcoal which are greater than 0.020 pound of VOC per start, as determined by the SCAQMD Rule 1174 Testing Protocol and the statistical analysis procedures contained therein, the Executive Officer shall revoke or modify the certification as is necessary to assure that the charcoal lighter material will result in VOC emissions of less than or equal to 0.020 pound of VOC per start. The Executive Officer shall not revoke or modify the prior certification without first affording the applicant for the certification an opportunity for a hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the certification should be modified or revoked.

(5) Notwithstanding any other provision of this subsection 94509(h), charcoal lighter material products manufactured prior to January 1, 1993, may be sold, supplied, or offered for sale until July 1, 1994, in all areas of California except the South Coast Air Quality Management District. Charcoal lighter material products subject to SCAQMD Rule 1174 and sold, supplied, or offered for sale in the South Coast Air Quality Management District shall meet the requirements of section 94509(h) upon the effective date of this subsection, regardless of the date on which the products were manufactured.

- (i) Requirements for aerosol adhesives (as defined in sections 94508(a)(1) and 94508(a)(3)).
 - (1) As specified in Health and Safety Code section 41712(h)(2), the standards for aerosol adhesives apply to all uses of aerosol adhesives, including consumer, industrial, and commercial uses. Except as otherwise provided in sections 94509(c), 94510, 94511, and 94514, no person shall sell, supply, offer for sale, use or manufacture for sale in California any aerosol adhesive which, at the time of sale, use, or manufacture, contains VOCs in excess of the specified standard.
 - (2)(A) In order to qualify as a "Special Purpose Spray Adhesive" the product must meet one or more of the definitions for "Special Purpose Spray Adhesive" specified in section 94508(a), but if the product label indicates that the product is suitable for use on any substrate or application not listed in one of the definitions for "Special Purpose Spray Adhesive," then the product shall be classified as either a "Web Spray Adhesive" or a "Mist Spray Adhesive."
 - (B) If a product meets more than one of the definitions specified in section 94508(a) for "Special Purpose Spray Adhesive," and is not classified as a "Web Spray Adhesive" or "Mist Spray Adhesive" under subsection (2)(A), then the VOC limit for the product shall be the lowest applicable VOC limit specified in section 94509(a).
 - (3) Effective 1/1/2002, no person shall sell, supply, offer for sale, or manufacture for use in California any aerosol adhesive which contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene, except that an aerosol adhesive manufactured before 1/1/2002 may be sold, supplied, or offered for sale until 1/1/2005, so long as the product complies with product dating requirements in section 94512(b).
 - (4) All aerosol adhesives must comply with the labeling requirements specified in section 94512(d), and all manufacturers and responsible parties for aerosol adhesives must comply with the special reporting requirements specified in section 94513(d).
- (j) Requirements for Floor Wax Strippers. After an effective date of January 1, 2002, no person shall sell, supply, offer for sale, or manufacture for use in California any floor wax stripper unless the following requirements

are met:

- (1) The label of each non-aerosol floor wax stripper must specify a dilution ratio for light or medium build-up of polish that results in an as-used VOC concentration of 3 percent by weight or less.
- (2) If a non-aerosol floor wax stripper is also intended to be used for removal of heavy build-up of polish, the label of that floor wax stripper must specify a dilution ratio for heavy build-up of polish that results in an as-used VOC concentration of 12 percent by weight or less.
- (3) The terms "light build-up," "medium build-up" or "heavy build-up" are not specifically required, as long as comparable terminology is used.
- (k) Effective dates of the VOC limits for "Carburetor or Fuel-injection Air Intake Cleaners" and "Construction, Panel, and Floor Covering Adhesives." "The definitions for the product categories of "Carburetor or Fuel-injection Air Intake Cleaners" and "Construction, Panel, and Floor Covering Adhesives" were modified as part of the "Mid-term Measures II" rulemaking action that was considered by the Board in October 1999. As a result of these modifications, certain types of consumer products were included in these definitions that had not previously been included. For those consumer products that were included in these definitions for the first time as a result of the "Mid-term Measures II" rulemaking action, the VOC limits (in section 94509(a)) applicable to these newly included products shall not become legally effective until December 31, 2002.
- (I) Automotive Windshield Washer Fluids. The provisions of subsection 94509(b)(1) shall not apply to "Automotive Windshield Washer Fluid (Pre-Mixed)" as defined in section 94508(a).
- (m) Requirements for Contact Adhesives, Electronic Cleaners, Footwear or Leather Care Products, and General Purpose Degreasers.
 - (1) Except as provided below in sections 94509(m)(2) and (m)(4), effective December 31, 2005, no person shall sell, supply, offer for sale, or manufacture for use in California any Contact Adhesive, Electronic Cleaner, Footwear or Leather Care Product, or General Purpose Degreaser that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.
 - (2) Sell-through of Products. Contact Adhesives, Electronic Cleaners, Footwear or Leather Care Products, and General Purpose Degreasers that contain methylene chloride, perchloroethylene, or trichloroethylene and were manufactured before December 31, 2005, may be sold, supplied, or offered for sale until December 31, 2008, so long as the product complies with product dating requirements in section 94512(b).

- (3) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product identified above in section 94509(m)(1) must notify the purchaser of the product in writing that the sell-through period for that product will end on December 31, 2008, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2008.
- (4) Impurities. The requirements of section 94509(m)(1) and (m)(3) shall not apply to any Contact Adhesive, Electronic Cleaner, Footwear or Leather Care Product, or General Purpose Degreaser containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.
- (n) Requirements for Adhesive Removers, Electrical Cleaners, and Graffiti Removers.
 - (1) Except as provided below in sections 94509(n)(2) and (n)(4), effective December 31, 2006, no person shall sell, supply, offer for sale, or manufacture for use in California any Adhesive Remover, Electrical Cleaner, or Graffiti Remover that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.
 - (2) Sell-through of Products. Adhesive Removers, Electrical Cleaners, and Graffiti Removers that contain methylene chloride, perchloroethylene, or trichloroethylene and were manufactured before December 31, 2006, may be sold, supplied, or offered for sale until December 31, 2009, so long as the product complies with product dating requirements in section 94512(b).
 - (3) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product identified above in section 94509(n)(1) must notify the purchaser of the product in writing that the sell-through period for that product will end on December 31, 2009, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2009.
 - (4) *Impurities*. The requirements of section 94509(n)(1) and (n)(3) shall not apply to any Adhesive Remover, Electrical Cleaner, or Graffiti Remover containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

- (o) Requirements for Solid Air Fresheners and Toilet/Urinal Care Products.
 - (1) Effective December 31, 2005, no person shall sell, supply, offer for sale, or manufacture for use in California any Solid Air Fresheners or Toilet/Urinal Care Products that contain para-dichlorobenzene, except those Solid Air Fresheners and Toilet/Urinal Care Products that contain paradichlorobenzene and were manufactured before December 31, 2005 may be sold, supplied, or offered for sale until December 31, 2006, so long as the product container or package displays the date on which the product was manufactured, or a code indicating such date.
 - (2) Notification for products sold during the sell-through period. Any person who sells or supplies any Solid Air Freshener or Toilet/Urinal Care Product that contains para-dichlorobenzene must notify the purchaser of the product in writing that the sell-through period for the product will end on December 31, 2006, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2006.
- (p) Requirements for Bathroom and Tile Cleaners, Construction, Panel, and Floor Covering Adhesives, electronic cleaners labeled as energized electronic equipment use only, General Purpose Cleaners, and Oven Cleaners.
 - (1) Except as provided below in sections 94509(p)(2) and (p)(4), effective December 31, 2008, no person shall sell, supply, offer for sale, or manufacture for use in California any Bathroom and Tile Cleaner, Construction, Panel, and Floor Covering Adhesive, electronic cleaners labeled as energized electronic equipment use only, General Purpose Cleaner, or Oven Cleaner that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.
 - (2) Sell-through of Products. Bathroom and Tile Cleaners, Construction, Panel, and Floor Covering Adhesives, electronic cleaners labeled as energized electronic equipment use only, General Purpose Cleaners, and Oven Cleaners that contain methylene chloride, perchloroethylene, or trichloroethylene and were manufactured before December 31, 2008, may be sold, supplied, or offered for sale until December 31, 2011, so long as the product complies with the product dating requirements in section 94512(b)
 - (3) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product identified above in section 94509(p)(1) must notify the purchaser of the product in writing that the sell-through period

for that product will end on December 31, 2011, provided, however, that this notification must be given only if both of the following conditions are met:

- (A) the product is sold or supplied to a distributor or retailer; and
- (B) the product is sold or supplied on or after June 30, 2011.
- (4) Impurities. The requirements of section 94509(p)(1) and (p)(3) shall not apply to any Bathroom and Tile Cleaner, Construction, Panel, and Floor Covering Adhesive, electronic cleaner labeled as energized electronic equipment use only, General Purpose Cleaner, or Oven Cleaner containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.
- (q) Requirements for Carpet/Upholstery Cleaner, Fabric Protectant, Multi-Purpose Lubricant, Penetrant, Sealant or Caulking Compound, and Spot Remover.
 - (1) Except as provided below in sections 94509(q)(2), (q)(4), and (q)(5), effective December 31, 2010, no person shall sell, supply, offer for sale, or manufacture for use in California any Carpet/Upholstery Cleaner, Fabric Protectant, Multi-Purpose Lubricant, Penetrant, Sealant or Caulking Compound, or Spot Remover that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.
 - (2) Sell-through of Products. Carpet/Upholstery Cleaners, Fabric Protectants, Multi-Purpose Lubricants, Penetrants, Sealant or Caulking Compound and Spot Removers that contain methylene chloride, perchloroethylene, or trichloroethylene and were manufactured before December 31, 2010, may be sold, supplied, or offered for sale until December 31, 2013, so long as the product complies with the product dating requirements in section 94512(b).
 - (3) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product identified above in section 94509(q)(1) must notify the purchaser of the product in writing that the sell-through period for that product will end on December 31, 2013, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2013.
 - (4) *Impurities*. The requirements of section 94509(q)(1) and (q)(3) shall not apply to any Carpet/Upholstery Cleaner, Fabric Protectant, Multi-Purpose Lubricant, Penetrant, Sealant or Caulking Compound, or Spot Remover containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

- (5) The requirements of this section 94509(q) shall not apply to "Penetrant" products used on equipment when electrical current exists; residual electrical potential from a component exists; or an open flame exists, as long as the "Principal Display Panel" clearly displays the statement: "Non-flammable: For use on energized equipment only."
- (r) Requirements for Pressurized Gas Duster.
 - (1) Except as provided below in sections 94509(r)(2) and (r)(3), effective December 31, 2010, no person shall sell, supply, offer for sale, or manufacture for use in California any Pressurized Gas Duster product that contains methylene chloride, perchloroethylene, or any chemical compound that has a Global Warming Potential (GWP) Value of 150 or greater.
 - (2) Sell-through of Products. Pressurized Gas Duster products that contain any chemical compound that has a GWP Value greater than 150, and were manufactured before December 31, 2010, may be sold, supplied, or offered for sale until December 31, 2011, so long as the product complies with the product dating requirements in section 94512(b).
 - (3) Notification for products sold during the sell-through period. Any person who sells or supplies a Pressurized Gas Duster identified above in section 94509(r)(2) must notify the purchaser of the product, in writing, that the sell-through period for that product will end on December 31, 2011, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2011.
 - (4) The provisions relating to fragrance in section 94510(c) shall not apply to any Pressurized Gas Duster subject to the requirements of this subsection 94509(r).
 - (5) *Impurities*. The requirements of section 94509(r)(1), (r)(2), and (r)(3) shall not apply to any chemical compound that is present as an impurity in a combined amount equal to or less than 0.1% by weight.
- (s) Requirements for Fabric Softener Single Use Dryer Product.
 - (1) Effective December 31, 2010, Fabric Softener Single Use Dryer Product shall not contain more than 0.05 grams of VOC per use. Compliance with the VOC limit shall be determined per sheet, or equivalent delivery substrate, based on the minimum recommended use for a single drying cycle specified on the product

packaging or label. In other words, if one sheet is the minimum recommended use for a single drying cycle, then the VOC limit applies per sheet. If two sheets are the minimum recommended use for a single drying cycle, then the VOC limit applies to the aggregate VOC content in two sheets. For purposes of this subsection, "minimum recommended use" shall not include recommendations for incidental use of additional sheets, or equivalent delivery substrate, for limited applications such as for extra large or double loads of washable fabrics in large capacity clothes dryers.

- (2) The provisions relating to fragrance in section 94510(c) shall not apply to Fabric Softener Single Use Dryer Product subject to the requirements of this subsection 94509(s)(1).
- (t) Requirements for Double Phase Aerosol Air Freshener.
 - (1) Except as provided below in sections 94509(t)(2) and (t)(4), effective December 31, 2012, no person shall sell, supply, offer for sale, or manufacture for use in California any Double Phase Aerosol Air Freshener that contains any chemical compound that has a Global Warming Potential (GWP) Value of 150 or greater.
 - (2) Sell-through of Products. Double Phase Aerosol Air Fresheners that contain any chemical compound that has a GWP Value of 150 or greater, and were manufactured before December 31, 2012, may be sold, supplied, or offered for sale until December 31, 2015, so long as the product complies with the product dating requirements in section 94512(b).
 - (3) Notification for products sold during the sell-through period. Any person who sells or supplies a Double Phase Aerosol Air Freshener identified above in section 94509(t)(2) must notify the purchaser of the product, in writing, that the sell-through period for that product will end on December 31, 2015, provided, however, that this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2015.
 - (4) *Impurities*. The requirements of section 94509(t)(1), (t)(2), and (t)(3) shall not apply to any chemical compound that is present as an impurity in a combined amount equal to or less than 0.1% by weight.
- (u) Requirements for Multi-purpose Solvent and Paint Thinner.
 - (1) Except as provided below in sections 94509(u)(2) and (u)(4), effective December 31, 2010, no person shall sell, supply, offer for sale, or

manufacture for use in California any Multi-purpose Solvent or Paint Thinner that contains any of the following:

- (A) chemical compounds that have a Global Warming Potential (GWP) Value of 150 or greater;
- (B) methylene chloride, perchloroethylene, or trichloroethylene;
- (C) greater than 1% Aromatic Compound content by weight.
- (2) Sell-through of Products. Multi-purpose Solvents and Paint Thinners that contain any chemical compound that has a GWP Value of 150 or greater; methylene chloride, perchloroethylene, or trichloroethylene; or greater than 1% Aromatic Compound content by weight; and were manufactured before December 31, 2010, may be sold, supplied, or offered for sale until December 31, 2013, so long as the product complies with the product dating requirements in section 94512(b).
- (3) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product identified above in section 94509(u)(2) must notify the purchaser of the product in writing that the sell-through period for that product will end on December 31, 2013, provided, however, this notification must be given only if both of the following conditions are met:
 - (A) the product is sold or supplied to a distributor or retailer; and
 - (B) the product is sold or supplied on or after June 30, 2013.
- (4) *Impurities*. The requirements of section 94509(u)(1), (u)(2) and (u)(3) shall not apply to any Multi-purpose Solvent, or Paint Thinner that contains any of the following:
 - (A) chemical compounds that have a Global Warming Potential (GWP) Value of 150 or greater and are present as impurities in a combined amount equal to or less than 0.1% by weight;
 - (B) methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

NOTE: Authority cited: Sections 38500, 38501, 38510, 38560, 38560.5, 38562, 38580, 39600, 39601, 39650, 39658, 39659, 39666 and 41712, Health and Safety Code. Reference: Sections 38505, 39002, 39600, 39650, 39655, 39656, 39658, 39659, 39666, 40000 and 41712, Health and Safety Code.

§ 94510. Exemptions.

- (a) This article shall not apply to any consumer product manufactured in California for shipment and use outside of California.
- (b) The provisions of this article shall not apply to a manufacturer or distributor who sells, supplies, or offers for sale in California a consumer product that does not comply with the VOC standards specified in Section 94509, as long as the manufacturer or distributor can demonstrate both that the consumer product is intended for shipment and use outside of California, and that the manufacturer or distributor has taken reasonable prudent precautions to assure that the consumer product is not distributed to California. This subsection (b) does not apply to consumer products that are sold, supplied, or offered for sale by any person to retail outlets in California.
- (c) Except for Fabric Softener Single Use Dryer Product and Pressurized Gas Duster, the VOC limits specified in Section 94509(a) shall not apply to fragrances up to a combined level of 2 percent by weight contained in any consumer product.
- (d) The VOC limits specified in Section 94509(a) shall not apply to any LVP-VOC.
- (e) The requirements of Section 94512(b) shall not apply to consumer products registered under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA; 7 U.S.C. Section 136-36y).
- (f) The VOC limits specified in Section 94509(a) shall not apply to air fresheners that are comprised entirely of fragrance, less compounds not defined as VOCs under Section 94508 or exempted under Section 94510(d).
- (g) The VOC limits specified in Section 94509(a) shall not apply to:
 - (1) insecticides containing at least 98% para-dichlorobenzene.
 - (2) Until December 30, 2006, the VOC limits specified in Section 94509(a) shall not apply to solid air fresheners containing at least 98% para-dichlorobenzene. On or after December 31, 2006, the provisions of section 94509(o) apply to solid air fresheners containing para-dichlorobenzene.
- (h) Except as specified in 94510(h)(3) below, the VOC limits specified in Section 94509(a) shall not apply to:
 - (1) existing personal fragrance products or personal fragrance products in development on or before April 1, 1992, provided that both (i) the registration data specified in section 94513 is submitted for every such product by the date specified in section 94513(a), or prior to July 1, 1993, whichever date occurs later, and (ii) such product is sold in California prior to January 1, 1994. For the

purposes of this subsection, a product "in development" means:

- (A) a product which a fragrance materials manufacturer is designing at the request of a personal fragrance product manufacturer, or
- (B) a product which is the subject of a written marketing profile or other documentation authorizing the creation and marketing of the product.
- (2) personal fragrance products in development may be registered to qualify for this exemption under hypothetical trade names or pseudonyms, provided that the actual trade name is supplied to the Executive Officer within 30 days of marketing such products, or January 1, 1994, whichever occurs first.
- (3) Effective December 31, 2014, subsections 94510(h)(1) and 94510(h)(2) shall no longer apply to any "Personal Fragrance Product" that contains 20 percent or less fragrance. Products manufactured before December 31, 2014 may be sold, supplied, or offered for sale until December 31, 2017, so long as the product complies with the product dating requirements in Section 94512(b).
- (i) The VOC limits specified in Section 94509(a) shall not apply to adhesives sold in containers of 1 fluid ounce or less.
- (j) The VOC limits specified in Section 94509(a) shall not apply to any VOC which is a fragrance in a personal fragrance product.
- (k) The VOC limits specified in Section 94509(a) shall not apply to bait station insecticides. For the purpose of this section, bait station insecticides are containers enclosing an insecticidal bait that is not more than 0.5 ounce by weight, where the bait is designed to be ingested by insects and is composed of solid material feeding stimulants with less than 5 percent (%) active ingredients.
- (I) Except as specified in 94510(I)(1), the 1/1/99 VOC limits specified in Section 94509(a) for personal fragrance products shall not apply to such products which have been sold in California prior to 1/1/99.
 - (1) On or after December 31, 2014, the 75 percent by weight VOC limit shall apply to any "Personal Fragrance Product" that contains 20 percent or less fragrance. Products manufactured before December 31, 2014 may be sold, supplied, or offered for sale until December 31, 2017, so long as the product complies with the product dating requirements in Section 94512(b).
- (m) Until December 31, 2013, the VOC limits specified in Section 94509(a), and the prohibition of Aromatic Compounds listed in section 94509(u)(1), shall not apply to Paint Thinners that are packaged in containers with a capacity less than or equal to 8 fluid ounces.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94511. Innovative Products.

- (a) The Executive Officer shall exempt a consumer product from the VOC limits specified in Section 94509(a) if a manufacturer demonstrates by clear and convincing evidence that, due to some characteristic of the product formulation, design, delivery systems or other factors, the use of the product will result in less VOC emissions as compared to:
 - (1) the VOC emissions from a representative consumer product which complies with the VOC limits specified in Section 94509(a), or
 - (2) the calculated VOC emissions from a noncomplying representative product, if the product had been reformulated to comply with the VOC limits specified in section 94509(a). VOC emissions shall be calculated using the following equation:

$$E_R = E_{NC} \times VOC_{STD} \div VOC_{NC}$$

where:

 E_R = The VOC emissions from the noncomplying representative product, had it been reformulated.

 E_{NC} = The VOC emissions from the noncomplying representative product in its current formulation.

 VOC_{STD} = the VOC limit specified in 94509(a).

 VOC_{NC} = the VOC content of the noncomplying product in its current formulation.

If a manufacturer demonstrates that this equation yields inaccurate results due to some characteristic of the product formulation or other factors, an alternative method which accurately calculates emissions may be used upon approval of the Executive Officer.

- (b) For the purposes of this section, "representative consumer product" means a consumer product which meets all of the following criteria:
 - (1) the representative product shall be subject to the same VOC limit in Section 94509(a) as the innovative product.
 - (2) the representative product shall be of the same product form as the innovative product, unless the innovative product uses a new form which does not exist in the product category at the time the application is made.

- (3) the representative product shall have at least similar efficacy as other consumer products in the same product category based on tests generally accepted for that product category by the consumer products industry.
- (c) A manufacturer shall apply in writing to the Executive Officer for any exemption claimed under subsection (a). The application shall include the supporting documentation that demonstrates the reduction of emissions from the innovative product, including the actual physical test methods used to generate the data and, if necessary, the consumer testing undertaken to document product usage. In addition, the applicant must provide any information necessary to enable the Executive Officer to establish enforceable conditions for granting the exemption including the VOC content for the innovative product and test methods for determining the VOC content. All information submitted by a manufacturer pursuant to this section shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022.
- (d) Within 30 days of receipt of the exemption application the Executive Officer shall determine whether an application is complete as provided in section 60030(a), Title 17, California Code of Regulations.
- (e) Within 90 days after an application has been deemed complete, the Executive Officer shall determine whether, under what conditions, and to what extent, an exemption from the requirements of Section 94509(a) will be permitted. The applicant and the Executive Officer may mutually agree to a longer time period for reaching a decision, and additional supporting documentation may be submitted by the applicant before a decision has been reached. The Executive Officer shall notify the applicant of the decision in writing and specify such terms and conditions that are necessary to ensure that emissions from the product will meet the emissions reductions specified in subsection (a), and that such emissions reductions can be enforced.
- (f) In granting an exemption for a product the Executive Officer shall establish conditions that are enforceable. These conditions shall include the VOC content of the innovative product, dispensing rates, application rates, and any other parameters determined by the Executive Officer to be necessary. The Executive Officer shall also specify the test methods for determining conformance to the conditions established. The test methods shall include criteria for reproducibility, accuracy, and sampling and laboratory procedures.
- (g) For any product for which an exemption has been granted pursuant to this section, the manufacturer shall notify the Executive Officer in writing within 30 days of any change in the product formulation or recommended product usage directions, and shall also notify the Executive Officer within 30 days if the manufacturer learns of any information which would alter the emissions estimates submitted to the Executive Officer in support of the exemption application.

- (h) If the VOC limits specified in Section 94509(a) are lowered for a product category through any subsequent rulemaking, all innovative product exemptions granted for products in the product category, except as provided in this subsection (h), shall have no force and effect as of the effective date of the modified VOC standard. This subsection (h) shall not apply to those innovative products which have VOC emissions less than the applicable lowered VOC limit and for which a written notification of the product's emissions status versus the lowered VOC limit has been submitted to and approved by the Executive Officer at least 60 days before the effective date of such limits.
- (i) If the Executive Officer believes that a consumer product for which an exemption has been granted no longer meets the criteria for an innovative product specified in subsection (a), the Executive Officer may modify or revoke the exemption as necessary to assure that the product will meet these criteria. The Executive Officer shall not modify or revoke an exemption without first affording the applicant an opportunity for a public hearing held in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with Section 60040), to determine if the exemption should be modified or revoked.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94512. Administrative Requirements.

- (a) Most Restrictive Limit.
 - (1) Products Manufactured Before January 1, 2007, and FIFRA-registered Insecticides Manufactured Before January 1, 2008. Notwithstanding the definition of "Product Category" in Section 94508, if anywhere on the principal display panel of any consumer product manufactured before January 1, 2007, or any FIFRA-registered insecticide manufactured before January 1, 2008, any representation is made that the product may be used as, or is suitable for use as a consumer product for which a lower VOC limit is specified in Section 94509(a), then the lowest VOC limit shall apply. This requirement does not apply to general purpose cleaners and insecticide foggers.
 - (2) Products Manufactured on or After January 1, 2007, and FIFRA-registered Insecticides Manufactured on or After January 1, 2008. Notwithstanding the definition of "product category" in Section 94508, if anywhere on the container or packaging of any consumer product manufactured on or after January 1, 2007, or any FIFRA-registered insecticide manufactured on or after January 1, 2008, or on any sticker or label affixed thereto, any representation is made that the product may be used as, or is suitable for use as a consumer product for which a lower VOC limit is specified in Section 94509(a), then the lowest VOC limit shall apply. This

requirement does not apply to general purpose cleaners and insecticide foggers.

(3) Rules that Apply when a Product Category Definition Excludes Other Product Categories.

If a definition of a regulated product category in section 94508(a) states that the product category "does not include" one or more other product categories, the "most restrictive limit" provisions of section 94512(a) apply to regulated products that meet the definition of the regulated product category and also make any representation that the regulated product may be used as (or is suitable for use as) a product that falls within one or more of the excluded product categories. Notwithstanding the foregoing above, this provision does not apply to "Disinfectant"/ "Sanitizer" products labeled as "Bathroom and Tile Cleaners," "Glass Cleaners," "General Purpose Cleaners," "Toilet/Urinal Care Products," "Metal Polishes," "Carpet Cleaners," or "Fabric Refreshers" that may also make disinfecting/sanitizing or anti-microbial claims on the label.

For example, if the definition for Regulated Product Category A states that it "does not include" Regulated Product Category B, then the "most restrictive limit" provisions apply to a regulated product that meets the definition of Regulated Product Category A, but also makes a representation that it may be used as (or is suitable for use as) Regulated Product Category B. In other words, if the regulated product makes any representation that it may be used as (or is suitable for use as) Regulated Category Product B, then the regulated product would be subject to the lowest VOC limit specified in section 94509(a) for either Product Category A or Product Category B.

For the purposes of this section:

"Regulated product" means a consumer product for which a VOC standard is specified in section 94509(a), and

"Representation" has the same meaning as used above in subsections 94512(a)(1) and 94512(a)(2) (i.e., what statements qualify as a "representation" depends on the date the product was manufactured and whether the statements appear on the "principal display panel" or other parts of the product container or packaging.)

(b) Product Dating

(1) Each manufacturer of a consumer product subject to Section 94509 shall clearly display on each consumer product container or package, the day, month, and year on which the product was manufactured, or a code indicating such date. Codes that represent a sequential batch number, or that otherwise cannot be attributed to a specific day, month, and year, do not satisfy this requirement.

(2) A manufacturer who uses the following code to indicate the date of manufacture shall not be subject to the requirements of section 94512(c)(1), if the code is represented separately from other codes on the product container so that it is easily recognizable:

YY DDD = year year day day day

Where: "YY" = two digits representing the year in which the product was manufactured, and

"DDD" = three digits representing the day of the year on which the product was manufactured, with "001" representing the first day of the year, "002" representing the second day of the year, and so forth (i.e. the "Julian date").

- (3) This date or code shall be displayed on each consumer product container or package no later than twelve months prior to the effective date of the applicable standard specified in Section 94509.
- (4) Except as otherwise provided in subsection (b)(5), for products manufactured on or after January 1, 2006, the date or code shall be displayed on the product container such that it is readily observable without irreversibly disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- (5) Products Sold in Multi-unit Packages.
 - (A) Products sold, supplied, or offered for sale in multi-unit packages are not required to comply with subsection (b)(4).
 - (B) If a multi-unit package does not comply with subsection (b)(4), the "sell-through" provisions of section 94509(c)(1) shall not apply to the individual product units contained within the multi-unit package. In other words, if any multi-unit package produced or assembled after January 1, 2006, does not display the date(s) or date-code(s) of the product units, such that the displayed information is readily observable without irreversibly disassembling any portion of the container or packaging, the individual product units shall be subject to the VOC standards in effect when the multi-unit package is sold, supplied, or offered for sale, regardless of the date on which the product units were manufactured.
 - (C) A multi-unit package may comply with subsection (b)(4) by displaying the date of assembly instead of the date(s) or date-code(s) of the individual product units, so long as the date of assembly is readily observable without irreversibly disassembling any portion of the container or packaging. The

"date of assembly" means the date that the individual product units are assembled into the finished multi-unit package. If the date of assembly is displayed instead of the individual date(s) or date-code(s), the "date of assembly" shall be the "date of manufacture" for all of the product units contained within the multi-unit package. In other words, all of the product units shall be deemed to have been manufactured on the date these units are assembled into the multi-unit package, even if the individual product units show different date(s) or date-code(s), and the "date of assembly" shall be "date of manufacture" of each product unit for the purposes of applying the "sell-through" provisions of section 94509(c).

- (6) The requirements of this subsection (b) shall not apply to:
 - (A) personal fragrance products of 2 milliliters or less, which are offered to consumers free of charge for the purpose of sampling the product; or
 - (B) products containing no VOCs (as defined in section 94508), or containing VOCs at 0.10% by weight or less.
- (c) Additional Product Dating Requirements.
 - (1) If a manufacturer uses a code indicating the date of manufacture, for any consumer product subject to section 94509 an explanation of the code must be filed with the Executive Officer of the ARB no later than twelve months prior to the effective date of the applicable standard specified in section 94509. Thereafter, manufacturers using a code must file an explanation of the code with the Executive Officer on an annual basis, beginning in 2006. The explanation of the code must be received by the Executive Officer on or before January 31st of each year, with the first explanation due on or before January 31, 2006.
 - (2) If a manufacturer changes any code indicating the date of manufacture for any consumer product subject to subsection (c)(1), an explanation of the modified code must be received by the Executive Officer before any products displaying the modified code are sold, supplied, or offered for sale in California.
 - (3) No person shall erase, alter, deface, or otherwise remove or make illegible any date or code indicating the date of manufacture from any regulated product container without the express authorization of the manufacturer.
 - (4) Codes indicating the date of manufacture are public information and may not be claimed as confidential.
- (d) Additional Labeling Requirements for Aerosol Adhesive, Adhesive Remover, Electronic Cleaner, Electrical Cleaner, Energized Electrical Cleaner, Contact

Adhesive, and Sealant or Caulking Compound (non-aerosol).

- (1) In addition to the requirements specified in subsections (a), (b), and (c), both the manufacturer and responsible party for each aerosol adhesive, adhesive remover, electronic cleaner, electrical cleaner, energized electrical cleaner, contact adhesive product, and sealant or caulking compound (non-aerosol) subject to this article shall ensure that all products clearly display the following information on each product container which is manufactured on or after the effective date for the category specified in section 94509(a), except that for non-chemically curing sealant or caulking compound (non-aerosol), the effective date of this requirement is December 31, 2010, and for chemically curing sealant or caulking compound (non-aerosol), the effective date of this requirement is December 31, 2012:
 - (A) The product category as specified in section 94509(a) or an abbreviation of the category shall be displayed;
 - (B) 1. The applicable VOC standard for the product that is specified in section 94509(a), except for Energized Electrical Cleaner, expressed as a percentage by weight, shall be displayed unless the product is included in an alternative control plan approved by the Executive Officer, as provided in Article 4, Sections 94540-94555, Title 17, California Code of Regulations, and the product exceeds the applicable VOC standard;
 - 2. If the product is included in an alternative control plan approved by the Executive Officer, and the product exceeds the applicable VOC standard specified in section 94509(a), the product shall be labeled with the term "ACP" or "ACP product;"
 - (C) If the product is classified as a special purpose spray adhesive, the applicable substrate and/or application or an abbreviation of the substrate/application that qualifies the product as special purpose shall be displayed;
 - (D) If the manufacturer or responsible party uses an abbreviation as allowed by this subsection 94512(d)(1)(A), an explanation of the abbreviation must be filed with the Executive Officer before the abbreviation is used.
- (2) The information required in section 94512(d)(1), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- (3) No person shall remove, alter, conceal, or deface the information required in

section 94512(d)(1) prior to final sale of the product.

(e) Additional Requirements for Multi-purpose Solvent and Paint Thinner.

The following requirements apply in addition to the requirements specified in section 94512(a), (b), and (c):

- (1) Except as provided below in section 94512(e)(2), effective December 31, 2010, until December 31, 2015, no person shall sell, supply, offer for sale, or manufacture for use in California any "Flammable" or "Extremely Flammable" Multi-purpose Solvent or Paint Thinner named, on the Principle Display Panel as "Paint Thinner," "Multi-purpose Solvent," "Clean-up Solvent," or "Paint Clean-up."
- (2) Section 94512(e)(1) does not apply to products that meet either of the following criteria:
 - (A) Products which include an attached "hang tag," sticker, or contrasting square or rectangular area on the Principle Display Panel that displays, at a minimum, the following statements in a font size as large as, or larger than, the "signal word" (i.e., "DANGER," "WARNING," or "CAUTION") as specified in title 16, Code of Federal Regulations, section 1500.121:

"Formulated to meet California VOC limits; see warnings on label; Vea las advertencias en la etiqueta, formulado complacientes con leyes de California" or

- (B) Products where the Principle Display Panel displays, in both English and Spanish and a font size as large as, or larger than, the font size of all other words on the panel, the common name of the chemical compound (e.g., "Acetone," "Methyl acetate," etc.) that results in the product meeting the criteria for "Flammable" or "Extremely Flammable."
- (3) For the purposes of this subsection (e), a product is "Flammable" or Extremely Flammable" if it is labeled as "Flammable" or "Extremely Flammable" on the product container, or if the product meets the criteria for these terms specified in title16, Code of Federal Regulations, section 1500.3(c)(6).

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94513. Reporting Requirements.

(a) Upon 90 days written notice, the Executive Officer may require any responsible party to report information for any consumer product or products the Executive Officer may specify including, but not limited to, all or part of the information: specified in the following subsections (a)(1) through (a)(12). If the

responsible party does not have or does not provide the information requested by the Executive Officer, the Executive Officer may require the reporting of this information by the person that has the information, including, but not limited to, any formulator, manufacturer, supplier, parent company, private labeler, distributor, or repackager.

- (1) the company name, address, telephone number, and designated contact person;
- (2) any claim of confidentiality made pursuant to Title 17, California Code of Regulations, Section 91011;
- (3) the product brand name for each consumer product and the product label;
- (4) the product category to which the consumer product belongs;
- (5) the applicable product form(s) listed separately;
- (6) an identification of each product brand name and form as a "Household Product," "I&I Product," or both;
- (7) separate California sales in pounds per year, to the nearest pound, and the method used to calculate California sales for each product form;
- (8) for information submitted by multiple companies, an identification of each company which is submitting relevant data separate from that submitted by the responsible party. All information from all companies shall be submitted by the date specified in Section 94513(a);
- (9) for each product brand name and form, the net percent by weight of the total product, less container and packaging, comprised of the following, rounded to the nearest one-tenth of a percent (0.1%):
 - (A) Total Table B Compounds
 - (B) Total LVP-VOCs that are not fragrances
 - (C) Total All Other Carbon-Containing Compounds that are not fragrances
 - (D) Total All Non-Carbon-Containing Compounds
 - (E) Total Fragrance
 - (F) For products containing greater than two percent by weight fragrance, but excluding "personal fragrance products":
 - (i) the percent of fragrance that are LVP-VOCs, and
 - (ii) the percent of fragrance that are all other carbon-containing compounds
 - (G) For "personal fragrance products," the density of the fragrance
 - (H) Total Para-dichlorobenzene
- (10) for each product brand name and form, the identity, including the specific chemical name and associated Chemical Abstract Services (CAS) number, of the

following:

- (A) Each Table B Compound
- (B) Each LVP-VOC that is not a fragrance
- (11) if applicable, the weight percent comprised of propellant for each product;
- (12) if applicable, an identification of the type of propellant (Type A, Type B, Type C, or a blend of the different types);
- (b) In addition to the requirements of section 94513(a)(10), the responsible party shall report or shall arrange to have reported to the Executive Officer the net percent by weight of each ozone-depleting compound which is (1) listed in section 94509(e) and (2) contained in a product subject to reporting under section 94513(a) in any amount greater than 0.1 percent by weight.
- (c) All information submitted by any person pursuant to Section 94513 shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022.
- (d) Special Reporting Requirements for Aerosol Adhesives

On or before March 31, 2004, all responsible parties for aerosol adhesives shall report to the Executive Officer the following information for products sold or offered for sale in California:

- data regarding product sales and composition for the year 2003, including the information listed in Section 94513(a), and any other information that the Executive Officer may specify; and
- (2) a written update of the research and development efforts undertaken to achieve VOC limits lower than the limits specified in section 94509(a). The written update must include detailed information about the raw materials (solvents, propellants, resins, and polymers) and hardware (valves, actuators, cans) used in product reformulation, the testing protocols used, the results of the testing, and the cost of reformulation efforts.
- (3) On or before December 31, 2003, the Executive Officer shall notify responsible parties in writing that they are to submit aerosol adhesive product and research data by March 31, 2004.
- (e) Special Reporting Requirements for Consumer Products that Contain Perchloroethylene or Methylene Chloride:
 - (1) The requirements of this subsection shall apply to all responsible parties for:

- (A) consumer products that are subject to section 94509(a) and contain perchloroethylene or methylene chloride, and
- (B) Energized Electrical Cleaners as defined in section 94508(a), that contain perchloroethylene or methylene chloride. For the purposes of this subsection, a product "contains perchloroethylene or methylene chloride" if the product contains 1.0 percent or more by weight (exclusive of the container or packaging) of either perchloroethylene or methylene chloride.
- (2) For each consumer product that contains perchloroethylene or methylene chloride, the responsible party shall report the following information for products sold in California during each calendar year, beginning with the year 2000, and ending with the year 2010.
 - (A) the product brand name and a copy of the product label with legible usage instructions;
 - (B) the product category to which the consumer product belongs;
 - (C) the applicable product form(s) (listed separately);
 - (D) for each product form listed in (C), the total sales in California during the calendar year to the nearest pound (exclusive of the container or packaging), and the method used for calculating the California sales;
 - (E) the weight percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the consumer product.
- (3) The information specified in subsection 94513(e)(2) shall be reported for each calendar year by March 1 of the following year. The first report shall be due on March 1, 2001, for calendar year 2000. A new report is due on March 1 of each year thereafter, until March 1, 2011, when the last report is due.
- (4) Upon request, the Executive Officer shall make the perchloroethylene information submitted pursuant to this subsection available to publicly owned treatment works in California, in accordance with the procedures for handling of confidential information specified in Title 17, California Code of Regulations, sections 91000-91022.
 - (A) On or before July 1, 2002, the Executive Officer shall evaluate the information, along with data on influent and effluent levels of perchloroethylene as reported by publicly-owned treatment works personnel and any other relevant information, to determine if it is likely that publicly-owned treatment works are experiencing increased levels of perchloroethylene, relative to 1996 levels, that can be attributed to consumer products which contain perchloroethylene.

- (B) If the Executive Officer determines that it is likely that increased perchloroethylene levels at the publicly-owned treatment works are caused by increased levels of perchloroethylene in consumer products subject to this regulation, then the Executive Officer shall, in conjunction with the publicly-owned treatment works and other appropriate parties, implement measures which are feasible, appropriate, and necessary for reducing perchloroethylene levels at the publicly-owned treatment works.
- (f) Special Reporting Requirements for Multi-purpose Lubricant and Penetrant products
 - (1) On or before March 31, 2012, all responsible parties for Multi-purpose Lubricant and Penetrant products shall report to the Executive Officer the following information for products sold or offered for sale in California:
 - (A) data regarding product sales and composition for the year 2011, including the information listed in section 94513(a), the entire product label; and
 - (B) a written update of the research and development efforts undertaken to achieve the 25 percent VOC limits specified in section 94509(a). The written update must include detailed information about the raw materials evaluated for use, maximum incremental reactivity (MIR) values for any VOC or LVP-VOC used or evaluated, the function of the raw material evaluated, hardware used in product reformulation, the testing protocols used, the results of the testing, and the cost of reformulation efforts.
 - (2) On or before March 31, 2014, all responsible parties for Multi-purpose Lubricant products shall report to the Executive Officer the following information for products sold or offered for sale in California:
 - (A) data regarding product sales and composition for the year 2013, including the information listed in Section 94513(a), the entire product label; and
 - (B) a written update of the research and development efforts undertaken to achieve the 10 percent VOC limit specified in section 94509(a). The written update must include detailed information about the raw materials evaluated for use, MIR values for any VOC or LVP-VOC used or evaluated, the function of the raw material evaluated, hardware used in product reformulation, the testing protocols used, the results of the testing, and the cost of reformulation efforts.
- (g) Special Reporting Requirements for Multi-purpose Solvent and Paint Thinner products
 - (1) On or before June 30, 2012, all responsible parties for Multi-purpose Solvent and Paint Thinner products shall report to the Executive Officer the following

information for products sold or offered for sale in California:

- (A) data regarding product sales and composition for the year 2011, including the information listed in section 94513(a), and the entire product label; and
- (B) a written update of the research and development efforts undertaken to achieve the 3 percent VOC limits specified in section 94509(a). The written update must include detailed information about the raw materials evaluated for use; maximum incremental reactivity (MIR) values for any VOC or LVP-VOC used or evaluated; the function of the raw material evaluated; the testing protocols used; the results of the testing; and the cost of reformulation efforts.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

§ 94514. Variances.

- (a) Applications for variances. Any person who cannot comply with the requirements set forth in Section 94509, because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:
 - (1) the specific grounds upon which the variance is sought;
 - (2) the proposed date(s) by which compliance with the provisions of Section 94509 will be achieved;
 - (3) a compliance report reasonably detailing the method(s) by which compliance will be achieved, and
 - (4) for applicants requesting a variance from the June 1, 1999, 55 percent VOC standard for hairspray products, the variance application shall also include a plan describing how the applicant will mitigate the excess VOC emissions that would be emitted during the period of the variance.
- (b) Notices and public hearings for variances. Upon receipt of a variance application containing the information required in subsection (a), the Executive Officer shall hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in Section 94509 is necessary and will be permitted. A hearing shall be initiated no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to every person who requests such notice, not less than 30 days prior to

- the hearing. The notice shall state that the parties may, but need not be, represented by counsel at the hearing. At least 30 days prior to the hearing, the variance application shall be made available to the public for inspection. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.
- (c) *Treatment of confidential information.* Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application.
- (d) Necessary findings for granting variances. No variance shall be granted unless all of the following findings are made:
 - (1) that, because of reasons beyond the reasonable control of the applicant, requiring compliance with Section 94509 would result in extraordinary economic hardship.
 - (2) that the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance.
 - (3) that the compliance report proposed by the applicant can reasonably be implemented, and will achieve compliance as expeditiously as possible.
- (e) Variance orders. Any variance order shall specify a final compliance date by which the requirements of Section 94509 will be achieved. Any variance order shall contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.
- (f) Situations in which variances shall cease to be effective. A variance shall cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.
- (g) *Modification and revocation of variances.* Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from requirements of Section 94509 after holding a public hearing in accordance with the provisions of subsection (b).
- (h) Special conditions in variance orders for hairspray products.
 - In imposing conditions in variance orders granted from the June 1, 1999, 55 percent VOC standard for hairspray products, the Executive Officer, in addition to any other

conditions that may be imposed, shall require the applicant to mitigate the excess VOC emissions that would be emitted during the period of the variance. If this mitigation requirement would result in an extraordinary economic hardship to the applicant, or if other good cause exists, the Executive Officer may waive all or part of this requirement.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

§ 94515. Test Methods.

- (a)(1) VOC and GWP compound content determination using ARB Method 310. Testing to determine compliance with the requirements of this article, shall be performed using Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted September 25, 1997 and as last amended on August 6, 2010, which is incorporated herein by reference. Alternative methods which are shown to accurately determine the concentration of VOCs in a subject product or its emissions may be used upon approval of the Executive Officer.
 - (2) In sections 3.5, 3.6, and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:
 - Sections 3.5, 3.6, and 3.7 of Air Resources Board Method 310
 - 3.5 *Initial Determination of VOC Content.* The Executive Officer will determine the VOC content pursuant to sections 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.
 - 3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the product does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.
 - 3.5.2 If the results obtained under section 3.5.1 show that the product does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17,

- California Code of Regulations, sections 91000 to 91022.
- 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
- 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.6 Determination of the LVP-VOC status of compounds and mixtures. This section does not apply to antiperspirant and deodorants or aerosol coating products because there is no LVP-VOC exemption for these products.
 - 3.6.1 Formulation data. If the vapor pressure is unknown, the following ASTM methods, which are incorporated by reference herein, may be used to determine the LVP-VOC status of compounds and mixtures: ASTM D 86-01 (Aug. 10, 2001), ASTM D 850-00 (Dec. 10, 2000), ASTM D 1078-01 (June 10, 2001), ASTM D 2879-97 (April 10, 1997), as modified in Appendix B to this Method 310, ASTM D 2887-01 (May 10, 2001) and ASTM E 1719-97 (March 10, 1997).
 - 3.6.2 LVP-VOC status of "compounds" or "mixtures." The Executive Officer will test a sample of the LVP-VOC used in the product formulation to determine the boiling point for a compound or for a mixture. If the boiling point exceeds 216°C, the compound or mixture is an LVP-VOC. If the boiling point is less than 216°C, then the weight percent of the mixture which boils above 216°C is an LVP-VOC. The Executive Officer will use the nearest 5 percent distillation cut that is greater than 216°C as determined under 3.6.1 to determine the percentage of the mixture qualifying as an LVP-VOC.
 - 3.6.3 Reference method for identification of LVP-VOC compounds and mixtures. If a product does not qualify as an LVP-VOC under 3.6.2, the Executive Officer will test a sample of the compound or mixture used in a product's formulation utilizing one or both of the following: ASTM D 2879-97 (April 10, 1997), as modified in Appendix B to this Method 310, and ASTM E 1719-97 (March 10, 1997), to determine if the compound or mixture meets the requirements of Title 17, CCR, section 94508(a)(94)(A).
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under sections 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation

data.

- 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.
- 3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.
- 3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.
- (b) VOC content determinations using product formulation and records. Testing to determine compliance with the requirements of this article may also be demonstrated through calculation of the VOC content from records of the amounts of constituents used to make the product pursuant to the following criteria:
 - (1) Compliance determinations based on these records may not be used unless the manufacturer of a consumer product keeps accurate records for each day of production of the amount and chemical composition of the individual product constituents. These records must be kept for at least three years.
 - (2) For the purposes of this section 94515(b), the VOC content shall be calculated according to the following equation:

VOC Content =
$$\frac{B - C}{A} \times 100$$

where.

A = total net weight of unit (excluding container and packaging)

B = total weight of all VOCs, as defined in Section 94508(a), per unit

C = total weight of VOCs exempted under Section 94510, per unit

(3) If product records appear to demonstrate compliance with the VOC limits, but these records are contradicted by product testing performed using ARB Method 310, the results of ARB Method 310 shall take precedence over the

product records and may be used to establish a violation of the requirements of this article.

- (c) Aromatic Compound content determination for Multi-purpose Solvent or Paint Thinner using ARB Method 310. Testing to determine compliance with the requirements of section 94509(u)(1)(C), shall be performed using Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted September 25, 1997 and as last amended on August 6, 2010, which is incorporated by reference herein. Alternative test methods that are demonstrated to be equally or more accurate than ARB Method 310 in determining the Aromatic Compound content in a product or its emissions may be used upon the written approval of the Executive Officer.
- (d) Aromatic Compound content determinations for Multi-purpose Solvent or Paint Thinner using product formulation and records. Testing to determine compliance with the requirements of section 94509(u)(1)(C), may also be demonstrated through calculation of Aromatic Compound content from records of the amounts of constituents used to make the product pursuant to the following criteria:
 - (1) Compliance determinations based on these records may not be used unless the manufacturer of a Multi-purpose Solvent or Paint Thinner keeps accurate records for each day of production of the amount and chemical composition of the individual product constituents. These records must be kept for at least three years.
 - (2) For the purposes of this section 94515(d), the Aromatic Compound content shall be calculated according to the following equation:

Aromatic Compound Content =
$$\underline{\underline{E}} \times 100$$

where,

D = total net weight of unit (excluding container and packaging)

E = total weight of all Aromatic Compounds, as defined in Section 94508(a), per unit

- (3) If product records appear to demonstrate compliance with the Aromatic Compound limit, but these records are contradicted by product testing performed using ARB Method 310, the results of ARB Method 310 shall take precedence over the product records and may be used to establish a violation of the requirements of this article.
- (e) Determination of liquid or solid. Testing to determine whether a product is a liquid or solid shall be performed using ASTM D4359-90 (May 25, 1990), which is

incorporated by reference herein.

- (f) Compliance determinations for charcoal lighter material products. Testing to determine compliance with the certification requirements for charcoal lighter material shall be performed using the procedures specified in the South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (February 28, 1991), which is incorporated by reference herein.
- (g) Testing to determine distillation points of petroleum distillate-based charcoal lighter materials shall be performed using ASTM D86-01 Aug. 10, 2001, which is incorporated by reference herein.
- (h) Fragrance content determinations for personal fragrance products. Testing to determine the percent by weight of fragrance in personal fragrance products shall be performed according to the Association of Official Analytical Chemists (AOAC) Official Method of Analysis No. 932.11, 1990, "Essential Oil in Flavor Extracts and Toilet Preparations, Babcock Method" (AOAC Official Methods of Analysis, 15th Edition, 1990), which is incorporated by reference herein.
- (i) No person shall create, alter, falsify, or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of the individual product, and any other test, processes, or records used in connection with product manufacture.

NOTE: Authority cited: Sections 39600, 39601, 39607, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39607, 40000, 41511 and 41712, Health and Safety Code.

94516. Severability.

Each part of this article shall be deemed severable, and in the event that any part of this article is held to be invalid, the remainder of this article shall continue in full force and effect.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94517. Federal Enforceability.

For purposes of federal enforceability of this article, the Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under Sections 94511, 94514, and 94515. Within 180 days of a request from a person who has been granted an exemption or variance under Section 94511 or 94514, an exemption or variance meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to Section 110 of the Clean Air Act,

42 U.S.C., Section 7410. Prior to submitting an exemption granted under Section 94511 as a revision to the applicable implementation plan, the Executive Officer shall hold a public hearing on the proposed exemption. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to the Environmental Protection Agency, every person who requests such notice, and to any person or group of persons whom the Executive Officer believes may be interested in the application. Within 30 days of the hearing the Executive Officer shall notify the applicant of the decision in writing as provided in Section 94511(f). The decision may approve, disapprove, or modify an exemption previously granted pursuant to Section 94511.

NOTE: Authority cited: Section 39600, 39601, 39602 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39602, 40000 and 41712, Health and Safety Code.

REGULATION FOR REDUCING THE OZONE FORMED FROM AEROSOL COATING PRODUCT EMISSIONS

Final Regulation Order REGULATION FOR REDUCING THE OZONE FORMED FROM AEROSOL COATING PRODUCT EMISSIONS

SUBCHAPTER 8.5. CONSUMER PRODUCTS

Article 3. Aerosol Coating Products

94520. Applicability.

This article shall apply to any person who sells, supplies, offers for sale, applies, or manufactures aerosol coating products for use in the state of California, except as provided in section 94523.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94521. Definitions.

- (a) For the purpose of this article, the following definitions apply:
- (1) "Adhesive" means a product used to bond one surface to another.
- "Aerosol Coating Product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.
- (3) "Anti-Static Spray" means a product used to prevent or inhibit the accumulation of static electricity.
- (4) "Art Fixative or Sealant" means a clear coating, including art varnish, workable art fixative, and ceramic coating, which is designed and labeled exclusively for application to paintings, pencil, chalk, or pastel drawings, ceramic art pieces, or other closely related art uses, in order to provide a final protective coating or to fix preliminary stages of artwork while providing a workable surface for subsequent revisions.
- (5) "ASTM" means the American Society for Testing and Materials.
- (6) "Auto Body Primer" means an automotive primer or primer surfacer coating designed and labeled exclusively to be applied to a vehicle body substrate for the purposes of corrosion resistance and building a repair area to a condition in which, after drying, it can be sanded to a smooth surface.

- (7) "Automotive Bumper and Trim Product" means a product, including adhesion promoters and chip sealants, designed and labeled exclusively to repair and refinish automotive bumpers and plastic trim parts.
- (8) "Automotive Underbody Coating" means a flexible coating which contains asphalt or rubber and is designed and labeled exclusively for use on the underbody of motor vehicles to resist rust, abrasion and vibration, and to deaden sound.
- (9) "Aviation Propeller Coating" means a coating designed and labeled exclusively to provide abrasion resistance and corrosion protection for aircraft propellers.
- (10) "Aviation or Marine Primer" means a coating designed and labeled exclusively to meet federal specification TT-P-1757.
- (11) "Base Reactive Organic Gas Mixture" (Base ROG Mixture) means the mixture of reactive organic gases utilized in deriving the MIR scale.
- (12) "Belt Dressing" means a product applied on auto fan belts, water pump belting, power transmission belting, and industrial and farm machinery belting to prevent slipping, and to extend belt life.
- (13) "Cleaner" means a product designed and labeled primarily to remove soil or other contaminants from surfaces.
- (14) "Clear Coating" means a coating which is colorless, containing resins but no pigments except flatting agents, and is designed and labeled to form a transparent or translucent solid film.
- (15) "Coating Solids" means the nonvolatile portion of an aerosol coating product, consisting of the film forming ingredients, including pigments and resins.
- (16) "Commercial Application" means the use of aerosol coating products in the production of goods, or the providing of services for profit, including touch-up and repair.
- (17) "Corrosion Resistant Brass, Bronze, or Copper Coating" means a clear coating designed and labeled exclusively to prevent tarnish and corrosion of uncoated brass, bronze, or copper metal surfaces.
- (18) "Distributor" means any person to whom an aerosol coating product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.
- (19) "Dye" means a product containing no resins which is used to color a surface or object without building a film.

- (20) "Electrical Coating" means a coating designed and labeled exclusively as such, which is used exclusively to coat electrical components such as wire windings on electric motors to provide insulation and protection from corrosion.
- (21) "Enamel" means a coating which cures by chemical cross-linking of its base resin and is not resoluble in its original solvent.
- (22) "Engine Paint" means a coating designed and labeled exclusively to coat engines and their components.
- (23) "Exact Match Finish, Engine Paint" means a coating which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied engine paint; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser.
- "Exact Match Finish, Automotive" means a topcoat which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied automotive coating during the touch-up of automobile finishes; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser. Not withstanding the foregoing, automotive clear coatings designed and labeled exclusively for use over automotive exact match finishes to replicate the original factory applied finish shall be considered to be automotive exact match finishes.
- (25) "Exact Match Finish, Industrial" means a coating which meets all of the following criteria: (A) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied industrial coating during the touch-up of manufactured products; (B) the product is labeled with the manufacturer's name for which they were formulated; and (C) the product is labeled with one of the following: (1.) the original equipment manufacturer's (O.E.M.) color code number; (2.) the color name; or (3.) other designation identifying the specific O.E.M. color to the purchaser.
- (26) "Executive Officer" means the Executive Officer of the Air Resources Board, or her or his delegate.
- (27) "Flat Paint Products" means a coating which, when fully dry, registers specular gloss less than or equal to 15 on an 85° gloss meter, or less than or equal to 5 on a 60° gloss meter, or which is labeled as a flat coating.

- (28) "Flatting Agent" means a compound added to a coating to reduce the gloss of the coating without adding color to the coating.
- (29) "Floral Spray" means a coating designed and labeled exclusively for use on fresh flowers, dried flowers, or other items in a floral arrangement for the purposes of coloring, preserving or protecting their appearance.
- (30) "Fluorescent Coating" means a coating labeled as such, which converts absorbed incident light energy into emitted light of a different hue.
- (31) "Glass Coating" means a coating designed and labeled exclusively for use on glass or other transparent material to create a soft, translucent light effect, or to create a tinted or darkened color while retaining transparency.
- (32) "Ground Traffic/Marking Coating" means a coating designed and labeled exclusively to be applied to dirt, gravel, grass, concrete, asphalt, warehouse floors, or parking lots. Such coatings must be in a container equipped with a valve and sprayhead designed to direct the spray toward the surface when the can is held in an inverted vertical position.
- (33) "High Temperature Coating" means a coating, excluding engine paint, which is designed and labeled exclusively for use on substrates which will, in normal use, be subjected to temperatures in excess of 400°F.
- (34) "Hobby/Model/Craft Coating" means a coating which is designed and labeled exclusively for hobby applications and is sold in aerosol containers of 6 ounces by weight or less.
- (35) "Ingredient" means a component of an aerosol coating product.
- (36) "Ink" means a fluid or viscous substance used in the printing industry to produce letters, symbols or illustrations, but not to coat an entire surface.
- (37) "Lacquer" means a thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and is resoluble in its original solvent.
- (38) "Layout Fluid" (or toolmaker's ink) means a coating designed and labeled exclusively to be sprayed on metal, glass or plastic, to provide a glare-free surface on which to scribe designs, patterns or engineering guide lines prior to shaping the piece.
- (39) "Leather preservative or cleaner" means a leather treatment material applied exclusively to clean or preserve leather.

- (40) "Lubricant" means a substance such as oil, petroleum distillates, grease, graphite, silicone, lithium, etc. that is used to reduce friction, heat, or wear when applied between surfaces.
- (41) "Manufacturer" means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.
- (42) "Marine Spar Varnish" means a coating designed and labeled exclusively to provide a protective sealant for marine wood products.
- (43) "Maskant" means a coating applied directly to a component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching, or performing other chemical operations on the surface of the component.
- (44) "Maximum Incremental Reactivity" (MIR) means the maximum change in weight of ozone formed by adding a compound to the "Base ROG Mixture" per weight of compound added, expressed to hundredths of a gram (g O₃/g ROC). MIR values for individual compounds and hydrocarbon solvents are specified in sections 94700 and 94701, Title 17, California Code of Regulations.
- "Metallic Coating" means a topcoat which contains at least 0.5 percent by weight elemental metallic pigment in the formulation, including propellant, and is labeled as "metallic", or with the name of a specific metallic finish such as "gold", "silver", or "bronze."
- (46) "Mold Release" means a coating applied to molds to prevent products from sticking to the surfaces of the mold.
- (47) "Multi-Component Kit" means an aerosol spray paint system which requires the application of more than one component (e.g. foundation coat and top coat), where both components are sold together in one package.
- (48) "Nonflat Paint Product" means a coating which, when fully dry, registers a specular gloss greater than 15 on an 85° gloss meter or greater than five on a 60° gloss meter.
- (49) "Ozone" means a colorless gas with a pungent odor, having the molecular form O_3 .
- (50) "Percent VOC By Weight" means the ratio of the weight of VOC to the total weight of the product contents expressed as follows:

Percent VOC By Weight = $(W_{VOC}/W_{total}) \times 100$

Where:

- (A) for products containing no water and no volatile compounds exempt from the definition of VOC: W_{VOC} = the weight of volatile compounds;
- (B) for products containing water or exempt compounds: W_{VOC} = the weight of volatile compounds, less water, and less compounds exempt from the VOC definition in this section 94521; and
- (C) W_{total} = the total weight of the product contents.
- (51) "Photograph Coating" means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image, changes in gloss level, or to cover fingerprints.
- (52) "Pleasure Craft" means privately owned vessels used for noncommercial purposes.
- (53) "Pleasure Craft Finish Primer/Surfacer/Undercoater" means a coating designed and labeled exclusively to be applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance and adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.
- (54) "Pleasure Craft Topcoat" means a coating designed and labeled exclusively to be applied to a pleasure craft as a final coat above the waterline and below the waterline when stored out of water. This category does not include clear coatings.
- (55) "Polyolefin Adhesion Promoter" means a coating designed and labeled exclusively to be applied to a polyolefin or polyolefin copolymer surface of automotive body parts, bumpers, or trim parts to provide a bond between the surface and subsequent coats.
- (56) "Primer" means a coating labeled as such, which is designed to be applied to a surface to provide a bond between that surface and subsequent coats.
- (57) "Product-Weighted MIR" (PWMIR) means the sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging) and calculated according to the following equations:
 - (a) Weighted MIR (Wtd-MIR) ingredient = MIR x Weight fraction ingredient, and,
 - (b) Product Weighted MIR = $(Wtd-MIR)_1 + (Wtd-MIR)_2 + ... + (Wtd-MIR)_n$ where,

MIR = ingredient MIR, as specified in section 94522(h);

Wtd-MIR = MIR of each ingredient in a product multiplied by the weight fraction of that ingredient, as shown in (a);

1,2,3,...,n = each ingredient in the product up to the total n ingredients in the product.

- (58) "Propellant" means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.
- (59) "Reactivity Limit" means the maximum "product-weighted MIR" allowed in an aerosol coating product that is subject to the limits specified in section 94522(a)(3) for a specific category, expressed as g O₃/g product.
- (60) "Reactive Organic Compound (ROC)" means any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.
- (61) "Responsible Party" means the company, firm, or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was "manufactured for" or "distributed by", as noted on the label.
- (62) "Retailer" means any person who sells, supplies, or offers aerosol coating products for sale directly to consumers.
- (63) "Retail Outlet" means any establishment where consumer products are sold, supplied, or offered for sale, directly to consumers.
- (64) "Rust Converter" means a product designed and labeled exclusively to convert rust to an inert material and which contains a minimum acid content of 0.5 percent by weight, and a maximum coating solids content of 0.5 percent by weight.
- (65) "Shellac Sealer" means a clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.
- (66) "Slip-Resistant Coating" means a coating designed and labeled exclusively as such, which is formulated with synthetic grit and used as a safety coating.
- (67) "Spatter Coating/Multicolor Coating" means a coating labeled exclusively as such wherein spots, globules, or spatters of contrasting colors appear on or within the surface of a contrasting or similar background.

- (68) "Stain" means a coating which is designed and labeled to change the color of a surface but not conceal the surface.
- (69) "Upper-Limit Kinetic Reactivity" (ULKR) means the maximum percentage of the emitted ROC which has reacted. For this article, the ULKR is one hundred percent and is used to calculate the ULMIR.
- (70) "Upper-Limit Mechanistic Reactivity" (ULMR) means the maximum gram(s) of ozone formed per gram of reactive organic compound (ROC) reacting. The ULMR is used to calculate the ULMIR.
- (71) "Upper-Limit MIR" (ULMIR) means the upper-limit kinetic reactivity (ULKR) multiplied by the upper-limit mechanistic reactivity (ULMR), as calculated using the following equation:

ULMIR = Upper Limit KR x Upper Limit MR.

The units for ULMIR are g O_3 /g ROC.

- (72) "Vinyl/Fabric/Leather/Polycarbonate Coating" means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.
- (73) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
 - (A) methane. methylene chloride (dichloromethane), 1,1,1-trichloroethane (methyl chloroform). trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115). chlorodifluoromethane (HCFC-22), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124). trifluoromethane (HFC-23), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), pentafluoroethane (HFC-125), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a),

cyclic, branched, or linear completely methylated siloxanes, the following classes of perfluorocarbons:

- 1. cyclic, branched, or linear, completely fluorinated alkanes;
- 2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- 3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- 4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and
- (B) the following low-reactive organic compounds which have been exempted by the U.S. EPA: acetone, ethane, methyl acetate parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene),
- (74) "Webbing/Veiling Coating" means a coating designed and labeled exclusively to provide a stranded to spider webbed appearance when applied.

perchloroethylene (tetrachloroethylene).

(75) "Weight Fraction" means the weight of an ingredient divided by the total net weight of the product, expressed to thousandths of a gram of ingredient per gram of product (excluding container and packaging). The weight fraction is calculated according to the following equation:

Weight Fraction =	Weight of the Ingredient
	Total Product Net Weight (excluding container and packaging).

- (76) "Weld-Through Primer" means a coating designed and labeled exclusively to provide a bridging or conducting effect for corrosion protection following welding.
- (77) "Wood Stain" means a coating which is formulated to change the color of a wood surface but not conceal the surface.
- (78) "Wood Touch-Up/Repair/Restoration" means a coating designed and labeled exclusively to provide an exact color or sheen match on finished wood products.
- (79) "Working Day" means any day between Monday through Friday, inclusive, except for days that are federal holidays.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94522. Limits and Requirements for Aerosol Coating Products.

- (a)(1) Compliance with Limits. Aerosol coating products manufactured beginning June 1, 2002, for the general coating categories and beginning January 1, 2003, for the specialty coating categories shall comply with the reactivity requirements specified in 94522(a)(3). Aerosol coating products manufactured before the effective dates of the reactivity limits specified in section 94522(a)(3) shall comply with the VOC requirements specified in section 94522(a)(2), except for products that are labeled by the manufacturer with the applicable reactivity limit, as provided in section 94524(b)(1)(B). If an aerosol coating product is so labeled, then the product shall comply with the reactivity requirements specified in section 94522(a)(3), regardless of the date on which the product was manufactured.
- (a)(2) VOC Limits for Aerosol Coating Products. Except as provided in sections 94522(a)(1), 94523 (Exemptions), 94525 (Variances), 94540 through 94555 (Alternative Control Plan), and 94567(a)(1) (Hairspray Credit Program), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, apply, or manufacture for use in California, any aerosol coating product which, at the time of sale, use, or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards after the specified effective dates.

Table of Standards Percent Volatile Organic Compounds by Weight¹

Aerosol Coating Category	1/8/96
General Coatings Clear Coatings Flat Paint Products Fluorescent Coatings Metallic Coatings Nonflat Paint Products Primers	67.0 60.0 75.0 80.0 65.0 60.0
Specialty Coatings Art Fixatives or Sealants Auto Body Primers Automotive Bumper and Trim Products Aviation or Marine Primers Aviation Propeller Coatings Corrosion Resistant Brass,	95.0 80.0 95.0 80.0 84.0 92.0

Bronze, or Copper Coatings Aerosol Coating Category	1/8/96
Specialty Coatings (continued)	
Exact Match Finishes:	
Engine Enamel	80.0
Automotive	88.0
Industrial	88.0
Floral Sprays	95.0
Glass Coatings	95.0
Ground Traffic/Marking Coatings	66.0
High Temperature Coatings	80.0
Hobby/Model/Craft Coatings:	
Enamel	80.0
Lacquer	88.0
Clear or Metallic	95.0
Marine Spar Varnishes	85.0
Photograph Coatings	95.0
Pleasure Craft Finish Primers,	75.0
Surfacers or Undercoaters	
Pleasure Craft Topcoats	0.08
Shellac Sealers:	
Clear	88.0
Pigmented	75.0
Slip-Resistant Coatings	80.0
Spatter/Multicolor Coatings	0.08
Vinyl/Fabric/Leather/Polycarbonate Coatings	95.0
Webbing/Veil Coatings	90.0
Weld-Through Primers	75.0
Wood Stains	95.0
Wood Touch-Up, Repair or Restoration Coatings	95.0

¹ As specified in section 94522(c), for aerosol coating products containing methylene chloride, the VOC standards specified in this subsection (a)(2) shall apply to the combined percent VOC and methylene chloride by weight.

(A) Except as provided in sections 94522(a)(1), 94523 (Exemptions) and 94525 (Variances), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, apply, or manufacture for use in California, any aerosol coating product which, at the time of sale, use, or manufacture, contains reactive organic compounds that have a PWMIR in

⁽a)(3) Reactivity Limits for Aerosol Coating Products.

excess of the limits specified in the following Table of Limits after the specified effective date.

Table of Limits

Product-Weighted MIR in Grams Ozone per Gram Product (g O3 / g product)

Aerosol Coating Category

General Coatings	06/01/2002
Clear Coatings	1.50
Flat Paint Products	1.20
Fluorescent Coatings	1.75
Metallic Coatings	1.90
Nonflat Paint Products	1.40
Primers	1.20

Specialty Coatings	01/01/2003
Art Fixatives or Sealants	1.80
Auto Body Primers	1.55
Automotive Bumper	1.75
and Trim Products	
Aviation or Marine Primers	2.00
Aviation Propeller Coatings	2.50
Corrosion Resistant Brass,	1.80
Bronze, or Copper Coatings	
Exact Match Finishes:	
Engine Enamel	1.70
Automotive	1.50
Industrial	2.05
Floral Sprays	1.70
Glass Coatings	1.40
Ground Traffic/Marking Coatings	1.20
High Temperature Coatings	1.85
Hobby/Model/Craft Coatings:	
Enamel	1.45
Lacquer	2.70
Clear or Metallic	1.60
Marine Spar Varnishes	0.90
Photograph Coatings	1.00
Pleasure Craft Finish Primers,	1.05
Surfacers or Undercoaters	

Pleasure Craft Topcoats	0.60
Polyolefin Adhesion Promoters	2.50
Shellac Sealers:	
Clear	1.00
Pigmented	0.95
Slip-Resistant Coatings	2.45
Spatter/Multicolor Coatings	1.05
Vinyl/Fabric/Leather/Polycarbonate Coatings	1.55
Webbing/Veil Coatings	0.85
Weld-Through Primers	1.00
Wood Stains	1.40
Wood Touch-Up, Repair	1.50
or Restoration Coatings	

- (a)(4) If an aerosol coating product is subject to both a general coating limit and a specialty coating limit, as listed in section 94522(a)(2) or (a)(3), and the product meets all the criteria of the applicable specialty coating category as defined in section 94521, then the specialty coating limit shall apply instead of the general coating limit.
- (a)(5) Notwithstanding the provisions of sections 94522(a)(4) or 94524(a), high-temperature coatings that contain at least 0.5 percent by weight of an elemental metallic pigment in the formulation, including propellant, shall be subject to the limit specified for metallic coatings.
- (a)(6) The Alternative Control Plan Regulation (sections 94540-94555) may not be used for aerosol coating products subject to the reactivity limits specified in section 94522(a)(3).
- (b) Sell-Through of Products Subject to the VOC Limits Specified in Section 94522(a)(2).

Notwithstanding the provisions of section 94522(a)(1) and (a)(3), an aerosol coating product manufactured prior to each of the effective dates specified for that product in section 94522(a)(3) may be sold, supplied, offered for sale, or applied for up to three years after each of the specified effective dates, provided that the product complies with the limit specified in section 94522(a)(2). This subsection (b) does not apply to any product which does not display on the product container or package the date on which the product was manufactured, or a code indicating such date.

- (c) Products Containing Methylene Chloride or Trichloroethylene.
 - (1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

For any aerosol coating product containing methylene chloride, the VOC standards specified in section 94522(a)(2) shall apply to the combined percent by weight of both volatile organic compounds, and methylene chloride, calculated as follows:

(Percent by weight VOC + Percent by weight methylene chloride) must be less than or equal to the applicable VOC standard

- (2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).
 - (A) For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains methylene chloride or trichloroethylene.
 - (B) The requirements of section 94522(c)(2) shall not apply to any aerosol coating product containing methylene chloride or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight of the product.
- (d) Products Containing Perchloroethylene or Ozone Depleting Substances.
 - (1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

For any aerosol coating product subject to the VOC limits specified in section 94522(a)(2), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains perchloroethylene, or an ozone depleting substance identified by the United States Environmental Protection Agency in the Code of Federal Regulations, 40 CFR Part 82, Subpart A, under Appendices A and B, July 1, 1998. The requirements of this section 94522(d)(1) shall not apply to (A) any existing product formulation that complies with the Table of Standards and was sold in California during calendar year 1992, or (B) any product formulation that was sold in California during calendar year 1992 that is reformulated to meet the Table of Standards, as long as the content of perchloroethylene, or ozone depleting substances, as identified in this section 94522(d), in the reformulated product does not increase.

(2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

(A) Perchloroethylene

For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains perchloroethylene.

(B) Ozone Depleting Substances

For any aerosol coating product subject to the reactivity limits specified in section 94522(a)(3), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains an ozone depleting substance identified by the United States Environmental Protection Agency in the Code of Federal Regulations, 40 CFR Part 82, Subpart A, under Appendices A and B, July 1, 1998. The requirements of this section 94522(d)(2) shall not apply to (1.) any existing product formulation containing an ozone depleting substance that complies with the Table of Limits and was sold in California during calendar year 1997, or (2.) any product formulation containing an ozone depleting substance that was sold in California during calendar year 1997 that is reformulated to meet the Table of Limits, as long as the content of ozone depleting substances, as identified in this section 94522(d)(2), in the reformulated product does not increase.

(3) The requirements of section 94522(d)(1) and (d)(2) shall not apply to any aerosol coating product containing perchloroethylene, or an ozone depleting substance as identified in section 94522(d)(1) or (d)(2), that are present as impurities in a combined amount equal to or less than 0.01% by weight of the product.

(e) Multicomponent Kits.

(1) Requirements for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

No person shall sell, supply, offer for sale, apply, or manufacture for use in California any multi-component kit, as defined in section 94521, in which the total weight of VOC and methylene chloride contained in the multi-component kit (Total VOC + MC)_{actual} is greater than the total weight of VOC and methylene chloride that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable VOC standards (Total VOC+ MC)_{standard} as calculated below:

$$(Total\ VOC + MC)_{actual} = (VOC_1\ x\ W_1) + (MC_1\ x\ W_1) + (VOC_2\ x\ W_2) + (MC_2\ x\ W_2) + (VOC_n\ x\ W_n) + (MC_n\ x\ W_n)$$

(Total VOC + MC)_{standard} = (STD₁ x W₁) + (STD₂ x W₂) + (STD_n x W_n)

Where:

VOC = the percent by weight VOC of the component product

MC = the percent by weight methylene chloride of the component product

STD = the VOC standard specified in section 94522(a) which applies to the component product

W = the weight of the product contents (excluding container)
Subscript 1 denotes the first component product in the kit
Subscript 2 denotes the second component product in the kit
Subscript n denotes any additional component product

(2) Requirements for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

No person shall sell, supply, offer for sale, apply, or manufacture for use in California any multi-component kit, as defined in section 94521, in which the Kit PWMIR is greater than the Total Reactivity Limit. The Total Reactivity Limit represents the limit that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable Reactivity Limit. The Kit PWMIR and Total Reactivity Limit are calculated as in equations (1), (2) and (3) below:

- (1) Kit PWMIR = $(PWMIR_{(1)} \times W_1) + (PWMIR_{(2)} \times W_2) + ... + (PWMIR_{(n)} \times W_n)$
- (2) Total Reactivity Limit = $(RL_1 \times W_1) + (RL_2 \times W_2) + ... + (RL_n \times W_n)$
- (3) Kit PWMIR ≤ Total Reactivity Limit

Where:

W = the weight of the product contents (excluding container) RL = the Reactivity Limit specified in section 94522(a)(3) Subscript 1 denotes the first component product in the kit Subscript 2 denotes the second component product in the kit Subscript n denotes any additional component product

(f) Products Assembled by Adding Bulk Paint to Aerosol Containers of Propellant. No person shall sell, supply, offer for sale, apply, or manufacture for use in the state of California any aerosol coating product assembled by adding bulk paint to aerosol containers of propellant, unless such products comply with the VOC standards specified in section 94522(a)(2), or with the reactivity limits specified in section 94522(a)(3) for products subject to those limits.

- (g) Requirements for Lacquer Aerosol Coating Products Subject to the VOC Limits Specified in Section 94522(a)(2).
 - (1) Notwithstanding the provisions of Section 94522(a)(2), lacquer aerosol coating products may be sold, supplied, offered for sale, applied, or manufactured for use in California with a combined VOC and methylene chloride content of up to 80 percent by weight until January 1, 1998.
 - (2) On or after January 1, 1998, all lacquer aerosol coating products sold, supplied, offered for sale, applied, or manufactured for use in California shall comply with the provisions of section 94522(a)(2), except that lacquer aerosol coating products manufactured prior to January 1, 1998 may be sold, supplied, offered for sale, or applied until January 1, 2001, as long as the product displays on the product container or package the date on which the product was manufactured or a code indicating such date.
 - (3) This subsection (g) does not apply to: (A) any lacquer coating product not clearly labeled as such, or (B) any lacquer coating product which is sold, supplied, offered for sale, applied, or manufactured for use in the Bay Area Air Quality Management District (BAAQMD) and is subject to BAAQMD Rule 8-49, or (C) any lacquer coating product that meets the definition of "clear coating" specified in section 94521.
- (h) Assignment of Maximum Incremental Reactivity (MIR) Values.
 - (1) In order to calculate the PWMIR of aerosol coating products as specified in section 94521(a)(57), the MIR values of product ingredients are assigned as follows:
 - (A) Any ingredient which does not contain carbon is assigned a MIR value of 0.0.
 - (B) Any aerosol coating solid, including but not limited to resins, pigments, fillers, plasticizers, and extenders is assigned a MIR value of 0.0.
 - (C) For any ROC not covered under (1)(A) and (1)(B) of this subsection (h), each ROC is assigned the MIR value set forth in Subchapter 8.6, Article 1, sections 94700 and 94701, Title 17, California Code of Regulations.
 - (D) Except as provided in subsection (h)(3), only ROCs listed in sections 94700 and 94701, Title 17, California Code of Regulations, can be used to comply with the reactivity limits specified in section

94522(a)(3).

- (E) All individual compounds in an amount equal to or exceeding 0.1 percent shall be considered ingredients in calculating the PWMIR. Such individual compounds shall be considered ingredients whether or not they are reported by the manufacturer pursuant to section 94526(b).
- (2) (A) The MIR values dated July 18, 2001, shall be used to calculate the PWMIR for aerosol coating products, and these MIR values shall not be changed until June 1, 2007.
 - (B) If a new ROC is added to section 94700 or 94701, then the new ROC may be used in aerosol coating products, and the MIR value for the new ROC shall be used to calculate the PWMIR after the effective date of the MIR value.
- (3) The MIR value for any aromatic hydrocarbon solvent with a boiling range different from the ranges specified in section 94701(b) shall be assigned as follows:
 - (A) if the solvent dry point is lower than or equal to 420 degrees F, the MIR value specified in section 94701(b) for bin 23 shall be used.
 - (B) if the solvent initial boiling point is higher than 420 degrees F, the MIR value specified in section 94701(b) for bin 24 shall be used.

NOTE: Authority cited: Section 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94523. Exemptions.

- (a) (1) For products manufactured before December 31, 2008: This article shall not apply to aerosol lubricants, mold releases, automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, rust converters, dyes, inks, cosmetics or any other products used on the human body, and leather preservatives or cleaners.
 - (2) For products manufactured on or after December 31, 2008: This article shall not apply to aerosol lubricants, mold releases, automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, rust converters, dyes, inks, cosmetics or any other products used on the human body, leather preservatives or cleaners, products for vehicle tires, "Rubber/Vinyl Protectants" as defined in section 94508, and "Fabric Protectants" as defined in section 94508.

- (b) This article shall not apply to any aerosol coating product manufactured in California for shipment and use outside of California.
- (c) The provisions of this article shall not apply to a manufacturer, distributor, or responsible party who sells, supplies, or offers for sale in California an aerosol coating product that does not comply with the limits specified in section 94522(a)(2) or (a)(3), as long as the manufacturer, distributor, or responsible party can demonstrate both that the aerosol coating product is intended for shipment and use outside of California, and that the manufacturer, distributor, or responsible party has taken reasonable prudent precautions to assure that the aerosol coating product is not distributed to California. This subsection (c) does not apply to aerosol coating products that are sold, supplied, or offered for sale by any person to retail outlets in California.
- (d) The requirements in sections 94522(a)(2) and (a)(3) prohibiting the application of aerosol coating products that exceed the limits specified in the sections 94522(a)(2) or (a)(3) shall apply only to commercial application of aerosol coating products.

NOTE: Authority cited: Section 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94524. Administrative Requirements.

(a) Most Restrictive Limit.

Except as otherwise provided in section 94522(a)(4), if anywhere on the container of any aerosol coating product subject to the specified limits in section 94522(a)(2) or (a)(3), or on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as a product for which a lower limit is specified, then the lowest applicable limit shall apply.

(b) Labeling Requirements.

- (1) Both the manufacturer and responsible party for each aerosol coating product subject to this article shall ensure that all products clearly display the following information on each product container which is manufactured 90 days or later after the effective date of this article.
 - (A) Products subject to the VOC limits specified in section 94522(a)(2) shall display:
 - 1. the applicable VOC standard for the product that is specified in section 94522(a)(2), expressed as a percentage by weight unless the product is included in an alternative control plan

- approved by the Executive Officer, as provided in Article 4. Section 94540-94555, Title 17, California Code of Regulations, and the product exceeds the applicable VOC standard;
- 2. if the product is included in an alternative control plan approved by the Executive Officer, and the product exceeds the applicable VOC standard specified in section 94522(a)(2), the product shall be labeled with the term "ACP" or "ACP product";
- 3. the aerosol coating category as defined in section 94521, or an abbreviation of the coating category; and
- 4. the day, month, and year on which the product was manufactured, or a code indicating such date.
- (B) Products subject to the reactivity limits specified in section 94522(a)(3) shall display:
 - 1. the applicable reactivity limit for the product that is specified in section 94522(a)(3);
 - 2. the aerosol coating category as defined in section 94521, or an abbreviation of the coating category; and
 - 3. the day, month, and year on which the product was manufactured, or a code indicating such date.
- (2) The information required in section 94524(b)(1), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- (3) No person shall remove, alter, conceal, or deface the information required in section 94524(b)(1) prior to final sale of the product.
- (4) For any aerosol coating product subject to section 94522(a), if the manufacturer or responsible party uses a code indicating the date of manufacture or an abbreviation of the coating category as defined in section 94521, an explanation of the code or abbreviation must be filed with the Executive Officer prior to the use of the code or abbreviation.

(c) Reporting Requirements.

(1) Any responsible party for an aerosol coating product subject to this article which is sold, supplied, or offered for sale in California, must supply the Executive Officer of the Air Resources Board with the following information within 90 days of the effective date of this article: the company name, mail address, contact person, and the telephone number of the contact person.

For responsible parties who do not manufacture their own aerosol coating products, the responsible party shall also supply the information specified in this subsection (c)(1) for those manufacturers which produce products for the responsible party.

The responsible party shall also notify the Executive Officer within 90 days of any change in the information supplied to the Executive Officer pursuant to this subsection (c)(1).

- (2) Upon 90 days written notice, each manufacturer or responsible party subject to this article shall submit to the Executive Officer a written report with all of the following information for each product they manufacture under their name or another company's name:
 - (A) the brand name of the product;
 - (B) upon request, a copy of the product label;
 - (C) the owner of the trademark or brand names;
 - (D) the product category as defined in section 94521;
 - (E) the annual California sales in pounds per year and the method used to calculate California annual sales;
 - (F) product formulation data:
 - for products subject to the VOC limits specified in section 94522(a)(2), the percent by weight VOC, water, solids, propellant, and any compounds exempt from the definition of VOC as specified in section 94521;
 - 2. for products subject to the reactivity limits specified in section 94522(a)(3), the PWMIR and the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 94522(h), 94700, or 94701 [Each ROC must be reported as an ingredient if it is present in an amount greater than or equal to 0.1 percent by weight of the final aerosol coatings formulation. If an individual ROC is present in an amount less than 0.1 percent by weight, then it does not need to be reported as an ingredient. In addition, an impurity that meets

the following definition does not need to be reported as an ingredient.

For the purpose of this section, an "impurity" means an individual chemical compound present in a raw material which is incorporated into the final aerosol coatings formulation, if the compound is present below the following amounts in the raw material:

- (i) for individual compounds that are carcinogens, as defined in 29 CFR section 1910.1200(d)(4), each compound must be present in an amount less than 0.1 percent by weight in order to be considered an "impurity."
- (ii) for all other compounds present in a raw material, a compound must be present in an amount less than 1 percent by weight in order to be considered an "impurity"];
- (G) an identification of each product brand name as a "household," "industrial," or "both" product; and
- (H) any other information necessary to determine the emissions or the product-weighted MIR from aerosol coating products.

The information requested in this section (c)(2) may be supplied as an average for a group of aerosol coating products within the same coating category when the products do not vary in VOC content by more than two percent (by weight), and the coatings are based on the same resin type, or the products are color variations of the same product (even if the coatings vary by more than 2 percent in VOC content).

- (3) Upon written request, the responsible party for aerosol coating products subject to this article shall supply the Executive Officer with a list of all exempt compounds contained in any aerosol coating product within 15 working days.
- (d) Treatment of Confidential Information.

All information submitted by manufacturers pursuant to section 94524 shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022.

(e) Special Reporting Requirements for Perchloroethylene-Containing Aerosol Coatings.

- (1) The requirements of this subsection shall apply to all responsible parties for perchloroethylene-containing aerosol coatings sold or offered for sale in California on or after January 1, 1996. For the purposes of this subsection, "perchloroethylene-containing aerosol coating" means any aerosol coating that is required to comply with any limit specified in section 94522(a)(2) or (a)(3) and contains 1.0 percent or more by weight (exclusive of the container or packaging) of perchloroethylene (tetrachloroethylene).
- (2) Reporting Requirements to Establish Baseline. On or before March 1, 1997, or 60 days after the effective date of this subsection (e) (whichever date occurs later), all responsible parties for perchloroethylene-containing aerosol coatings shall report to the Executive Officer the following information for each product:
 - (A) the product brand name and a copy of the product label with legible usage instructions;
 - (B) the product category to which the aerosol coating belongs;
 - (C) the total amount of the aerosol coating sold in California between January 1, 1996 and December 31, 1996, to the nearest pound (exclusive of the container or packaging), and the method used for calculating the California sales;
 - (D) the weight percent, to the nearest 0.10 percent, of perchloroethylene in the aerosol coating.
- (3) Annual Reporting Requirements. On or before March 1, 1998, March 1, 1999, March 1, 2000, March 1, 2001, and March 1, 2002, all responsible parties subject to the requirements of this subsection shall provide to the Executive Officer an update which reports, for the previous calendar year, any changes in the annual California sales, perchloroethylene content, or any other information provided pursuant to subsections (e)(2)(A) through (e)(2)(D). After March 1, 2002, responsible parties are not required to submit this information unless specifically requested to do so by the Executive Officer.
- (4) Upon request, the Executive Officer shall make the information submitted pursuant to this subsection available to publicly-owned treatment works in California, in accordance with the procedures for handling of confidential information specified in Title 17, California Code of Regulations, sections 91000-91022.

- (A) On or before July 1, 2002, the Executive Officer shall evaluate the information, along with data on influent and effluent levels of perchloroethylene as reported by publicly-owned treatments works and any other relevant information, to determine if it is likely that publicly-owned treatment works are experiencing increased levels of perchloroethylene, relative to 1996 levels, that can be attributed to aerosol coatings which contain perchloroethylene.
- (B) If the Executive Officer determines that it is likely that increased perchloroethylene levels at the publicly-owned treatment works are caused by increased levels of perchloroethylene in aerosol coatings subject to this regulation, then the Executive Officer shall, in conjunction with the publicly-owned treatment works, implement measures which are feasible, appropriate, and necessary for reducing perchloroethylene levels at the publicly-owned treatment works.

NOTE: Authority cited: Section 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94525. Variances.

- (a) Any person who cannot comply with the requirements set forth in Section 94522, because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:
 - (1) the specific grounds upon which the variance is sought;
 - (2) the proposed date(s) by which compliance with the provisions of Section 94522 will be achieved, and
 - (3) a compliance report reasonably detailing the method(s) by which compliance will be achieved.
- (b) Upon receipt of a variance application containing the information required in subsection (a), the Executive Officer shall hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in Section 94522 is necessary and will be permitted. A hearing shall be initiated no later than 75 working days after receipt of a variance application. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to every person who requests such notice, not less than

30 days prior to the hearing. The notice shall state that the parties may, but need not be, represented by counsel at the hearing. At least 30 days prior to the hearing, the variance application shall be made available to the public for inspection. Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.

- (c) No variance shall be granted unless all of the following findings are made:
 - (1) that, because of reasons beyond the reasonable control of the applicant, requiring compliance with Section 94522 would result in extraordinary economic hardship.
 - (2) that the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance.
 - (3) that the compliance report proposed by the applicant can reasonably be implemented, and will achieve compliance as expeditiously as possible.
- (d) Any variance order shall specify a final compliance date by which the requirements of Section 94522 will be achieved. Any variance order shall contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.
- (e) A variance shall cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.
- (f) Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from the requirements of Section 94522 after holding a public hearing in accordance with the provisions of subsection 94525(b).

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94526. Test Methods.

Compliance with the requirements of this article shall be determined by using the following test methods, which are incorporated by reference herein. Alternative test methods which are shown to accurately determine the VOC content, ingredient name and weight percent of each ingredient, exempt compound content, metal content, specular gloss, or acid content may also be used after approval in writing by the Executive Officer:

- (a) Testing for Products Subject to the VOC Limits Specified in Section 94522(a)(2).
 - (1) VOC Content. The VOC content of all aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products", adopted September 25, 1997 and as last amended on May 5, 2005.
 - (2) In sections 3.5 and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5 and 3.7 of Air Resources Board Method 310

- 3.5 *Initial Determination of VOC Content*. The Executive Officer will determine the VOC content pursuant to section 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.
 - 3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the products does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.
 - 3.5.2 If the results obtained under section 3.5.1 show that the products does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested

information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.

- 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
- 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under section 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.
 - 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.
 - 3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.
 - 3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.
- (b) Testing for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).
 - (1) The ingredients and the amount of each ingredient of all aerosol coating products subject to the provisions of this article shall be determined by the

- procedures set forth in "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products," adopted September 25, 1997 and as last amended on May 5, 2005.
- (2) Upon written notification from the Executive Officer, the aerosol coating manufacturer shall have 10 working days to provide to the Executive Officer the following information for products selected for testing:
 - (A) the product category as defined in section 94521(a);
 - (B) the PWMIR;
 - (C) the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 94522(h), 94700, or 94701 [Each ROC must be reported as an ingredient if it is present in an amount greater than or equal to 0.1 percent by weight of the final aerosol coatings formulation. If an individual ROC is present in an amount less than 0.1 percent by weight, then it does not need to be reported as an ingredient. In addition, an impurity that meets the following definition does not need to be reported as an ingredient.

For the purpose of this section, an "impurity" means an individual chemical compound present in a raw material which is incorporated into the final aerosol coatings formulation, if the compound is present below the following amounts in the raw material:

- (i) for individual compounds that are carcinogens, as defined in 29 CFR section 1910.1200(d)(4), each compound must be present in an amount less than 0.1 percent by weight in order to be considered an "impurity."
- (ii) for all other compounds present in a raw material, a compound must be present in an amount less than 1 percent by weight in order to be considered an "impurity"];
- (D) any other information necessary to determine the PWMIR of the aerosol coating products to be tested.
- (3) Final determination of the PWMIR of the aerosol coatings shall be determined using the information obtained from section 94526(b)(1) and (2).
- (c) Exempt Compounds from Products Subject to the VOC Limits Specified in

Section 94522(a)(2). Compounds exempt from the definition of VOC shall be analyzed according to the test methods listed below:

- (1) the exempt compound content of aerosol coating products shall be determined by "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products," adopted September 25, 1997 and as last amended on May 5, 2005, which is incorporated herein by reference.
- the following classes of compounds will be analyzed as exempt compounds only if manufacturers specify which individual compounds are used in the product formulations and identify the test methods, which prior to such analysis, have been approved by the Executive Officer of the ARB, and can be used to quantify the amounts of each exempt compound: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (d) Metal Content. The metal content of metallic aerosol coating products shall be determined by South Coast Air Quality Management District (SCAQMD) Test Method 318-95 "Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction" July 1996, which is incorporated herein by reference.
- (e) Specular Gloss. Specular gloss of flat and nonflat coatings shall be determined by ASTM Method D-523-89, March 31, 1989, which is incorporated herein by reference.
- (f) Acid Content. The acid content of rust converters shall be determined by ASTM Method D-1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish. Lacquer, and Related Products, May 10, 1996, which is incorporated herein by reference.
- (g) Lacquers. Lacquer aerosol coating products shall be identified according to the procedures specified in ASTM Method D-5043-90, "Standard Test Methods for Field Identification of Coatings," April 27, 1990, which is incorporated herein by reference.

NOTE: Authority cited: Sections 39600, 39601, 39607, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39607, 40000, 41511 and 41712, Health and Safety Code.

94527. Severability.

Each part of this article shall be deemed severable, and in the event that any part of this article is held to be invalid, the remainder of this article shall continue in full force and effect.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94528. Federal Enforceability.

For purposes of federal enforceability of this article, the United States Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under sections 94525 and 94526. Within 180 days of a request from a person who has been granted a variance under Section 94525, a variance meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to Section 110 of the Clean Air Act, 42 U.S.C., Section 7410.

NOTE: Authority cited: Sections 39600, 39601, 39602 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39602, 40000 and 41712, Health and Safety Code.

FINAL regulation order

Tables of Maximum Incremental

Reactivity (MIR) Values

SUBCHAPTER 8.6 Maximum Incremental Reactivity

Article 1. Tables of Maximum Incremental Reactivity (MIR) Values

§ 94700. MIR Values for Compounds.

	values for compounds.	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
	Alkanes		
1	methane	0.01	0.014
2	ethane	0.31	0.28
3	propane	0.56	0.49
4	cyclopropane	0.10	0.09
5	n-butane	1.33	1.15
6	isobutane	1.35	1.23
7	cyclobutane	1.05	1.20
8	n-pentane	1.54	1.31
9	branched C5 alkane(s)	1.68	1.45
10	neopentane	0.69	0.67
11	isopentane	1.68	1.45
12	cyclopentane	2.69	2.39
13	n-hexane	1.45	1.24
14	branched C6 alkane(s)	1.53	1.31
15	2,2-dimethyl butane	1.33	1.17
16	2,3-dimethyl butane	1.14	0.97
17	2-methyl pentane	1.80	1.50
18	3-methyl pentane	2.07	1.80
19	C6 cycloalkane(s)	1.46	1.25
20 21	cyclohexane	1.46	1.25
21	isopropyl cyclopropane	1.52	1.22
22	methyl cyclopentane	2.42	2.19
23	unspeciated C6 alkane(s)	1.48	1.27
24	n-heptane	1.28	1.07
25 26	2,2,3-trimethyl butane	1.32	1.11
	2,2-dimethyl pentane	1.22	1.12
27	2,3-dimethyl pentane	1.55	1.34
28	2,4-dimethyl pentane	1.65	1.55
29	2-methyl hexane	1.37	1.19

		MID Value	New MIR
	Organic Compound	MIR Value	
	Organiic Compound	(July 18, 2001)	Value (October 2, 2010)
30	3,3-dimethyl pentane	1.32	1.20
31	3-methyl hexane	1.86	1.61
32	3-ethyl pentane*	1.79	1.90
33	branched C7 alkane(s)	1.63	1.48
34	1,1-dimethyl cyclopentane*	1.01	1.08
35	1,2-dimethyl cyclopentane*	1.87	1.99
36	C7 cycloalkane(s)	1.99	1.70
37	1,3-dimethyl cyclopentane	2.15	1.94
38	cycloheptane	2.13	1.96
39	ethyl cyclopentane	2.27	2.01
40	methyl cyclohexane	1.99	1.70
41	unspeciated C7 alkane(s)	1.79	1.70
42	n-octane	1.11	0.90
43	branched C8 alkane(s)	1.57	1.45
44	2,2,3,3-tetramethyl butane	0.44	0.33
44 45	2,2,4-trimethyl pentane	1.44	1.26
46	2,2-dimethyl hexane	1.13	1.02
47	2,3,4-trimethyl pentane	1.13	1.02
48	2,3-dimethyl hexane	1.34	1.19
49	2,4-dimethyl hexane	1.80	1.73
4 9	2,5-dimethyl hexane	1.68	1.46
51	2-methyl heptane	1.20	1.07
52	3-methyl heptane	1.35	1.24
53	4-methyl heptane	1.48	1.25
54	2,3,3-trimethyl pentane*	0.95	1.02
55	3,3-dimethyl hexane*	1.16	1.24
56	2,2,3-trimethyl pentane*	1.15	1.22
57	3,4-dimethyl hexane*	1.41	1.51
58	3-ethyl 2-methyl pentane*	1.25	1.33
59	C8 bicycloalkane(s)	1.75	1.51
60	1,1,2-trimethyl cyclopentane*	1.04	1.12
60 61	1,1,3-trimethyl cyclopentane*	0.94	1.01
62	1,1-dimethyl cyclohexane*	1.13	1.22
62 63	1,2,3-trimethyl cyclopentane*	1.52	1.63
64	1,2,4-trimethyl cyclopentane*	1.43	1.53
65	1-methyl-3-ethyl cyclopentane*	1.53	1.64
66	1,2-dimethyl cyclohexane*	1.30	1.41
67	1,4-dimethyl cyclohexane*	1.51	1.62
68	C8 cycloalkane(s)	1.75	1.47
69	1,3-dimethyl cyclohexane	1.72	1.52
70	cyclooctane	1.73	1.46
71	ethyl cyclohexane	1.75	1.47
72	propyl cyclopentane	1.91	1.69
	The art A system for the system of the syste		

		MDValue	Marri MID
	Ourse wie Course oursel	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
72	unanaciated CO alkana(a)	2001)	2, 2010)
73 74	unspeciated C8 alkane(s)	1.64	1.27
74 75	n-nonane	0.95	0.78
75 70	branched C9 alkane(s)	1.25	1.14
76 	2,2,5-trimethyl hexane	1.33	1.13
77	2,3,5-trimethyl hexane	1.33	1.22
78	2,4-dimethyl heptane	1.48	1.38
79	2-methyl octane	0.96	0.83
80	3,3-diethyl pentane	1.35	1.21
81	3,5-dimethyl heptane	1.63	1.56
82	4-ethyl heptane	1.44	1.22
83	4-methyl octane	1.08	0.95
84	2,4,4-trimethyl hexane*	1.26	1.34
85	3,3-dimethyl heptane*	1.05	1.13
86	4,4-dimethyl heptane*	1.19	1.27
87	2,2-dimethyl heptane*	0.93	1.00
88	2,2,4-trimethyl hexane*	1.19	1.26
89	2,6-dimethyl heptane*	0.96	1.04
90	2,3-dimethyl heptane*	1.01	1.09
91	2,5-dimethyl heptane*	1.25	1.35
92	3-methyl octane*	0.91	0.99
93	3,4-dimethyl heptane*	1.15	1.24
94	3-ethyl heptane*	1.01	1.10
95	cis-hydrindane; bicyclo[4.3.0]nonane*	1.20	1.31
96	C9 bicycloalkane(s)	1.57	1.39
97	1,2,3-trimethyl cyclohexane*	1.12	1.22
98	1,3,5-trimethyl cyclohexane*	1.06	1.15
99	1,1,3-trimethyl cyclohexane	1.37	1.19
100	1-ethyl-4-methyl cyclohexane	1.62	1.44
101	propyl cyclohexane	1.47	1.29
102	C9 cycloalkane(s)	1.55	1.36
103	unspeciated C9 alkane(s)	2.13	1.09
104	n-decane; n-C10	0.83	0.68
105	branched C10 alkane(s)	1.09	0.94
106	2,4,6-trimethyl heptane*	1.20	1.28
107	2,4-dimethyl octane	1.09	1.03
108	2,6-dimethyl octane	1.27	1.08
109	2-methyl nonane	0.86	0.73
110	3,4-diethyl hexane	1.20	0.89
111	3-methyl nonane	0.89	0.75
112	4-methyl nonane	0.89	0.75
113		1.24	1.02
	4-propyl heptane		1.02
114	2,4,4-trimethyl heptane*	1.23	
115	2,5,5-trimethyl heptane*	1.17	1.25

-			
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
116	3,3-dimethyl octane*	1.01	1.09
117	4,4-dimethyl octane*	1.06	1.14
118	2,2-dimethyl octane*	0.77	0.83
119	2,2,4-trimethyl heptane*	1.09	1.16
120	2,2,5-trimethyl heptane*	1.18	1.26
121	2,3,6-trimethyl heptane*	0.82	0.90
122	2,3-dimethyl octane*	0.79	0.86
123	2,5-dimethyl octane*	0.94	1.03
124	2-methyl-3-ethyl heptane*	0.91	0.99
125	4-ethyl octane*	0.71	0.79
126	C10 bicycloalkane(s)	1.29	1.09
127	isobutyl cyclohexane; (2-methylpropyl) cyclohexane*	0.90	0.99
128	sec-butyl cyclohexane*	0.90	0.99
129	C10 cycloalkane(s)	1.27	1.07
130	1,3-diethyl cyclohexane	1.34	1.26
131	1,4-diethyl cyclohexane	1.49	1.23
132	1-methyl-3-isopropyl cyclohexane	1.26	1.00
133	butyl cyclohexane	1.07	0.99
134	unspeciated C10 alkane(s)	1.16	0.90
135	n-undecane; n-C11	0.74	0.61
136	branched C11 alkane(s)	0.87	0.73
137	2,3,4,6-tetramethyl heptane	1.26	1.11
138	2,6-dimethyl nonane	0.95	0.79
139	3,5-diethyl heptane	1.21	1.11
140	3-methyl decane	0.77	0.65
141	4-methyl decane	0.80	0.68
142	C11 bicycloalkane(s)	1.01	0.91
143	C11 cycloalkane(s)	0.99	0.90
144	1,3-diethyl-5-methyl cyclohexane	1.11	1.04
145	1-ethyl-2-propyl cyclohexane	0.95	0.81
146	pentyl cyclohexane	0.91	0.84
147	unspeciated C11 alkane(s)	0.90	0.74
148	n-dodecane; n-C12	0.66	0.55
149	branched C12 alkane(s)	0.80	0.63
150	2,3,5,7-tetramethyl octane	1.06	0.91
151	2,6-diethyl octane	1.09	0.97
152	3,6-dimethyl decane	0.88	0.70
153	3-methyl undecane	0.70	0.59
154	5-methyl undecane	0.72	0.55
155	C12 tricycloalkane(s)*	0.74	0.82
156	C12 bicycloalkane(s)	0.88	0.81
157	C12 cycloalkane(s)	0.87	0.80
158	1,3,5-triethyl cyclohexane	1.06	1.02

-			T
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
159	1-methyl-4-pentyl cyclohexane	0.81	0.72
160	hexyl cyclohexane	0.75	0.65
161	unspeciated C12 alkane(s)	0.81	0.66
162	n-tridecane; n-C-13	0.62	0.53
163	branched C13 alkane(s)	0.73	0.60
164	2,3,6-trimethyl 4-isopropyl heptane	1.24	0.93
165	2,4,6,8-tetramethyl nonane	0.94	0.76
166	3,6-dimethyl undecane	0.82	0.69
167	3,7-diethyl nonane	1.08	0.89
168	3-methyl dodecane	0.64	0.54
169	5-methyl dodecane	0.64	0.47
170	C13 tricycloalkane(s)*	0.64	0.71
171	C13 bicycloalkane(s)	0.79	0.70
172	C13 cycloalkane(s)	0.78	0.70
173	1,3-diethyl-5-propyl cyclohexane	0.96	0.96
174	1-methyl-2-hexyl cyclohexane	0.70	0.58
175	heptyl cyclohexane	0.66	0.55
176	unspeciated C13 alkane(s)	0.73	0.61
177	n-tetradecane; n-C14	0.58	0.51
178	branched C14 alkane(s)	0.67	0.55
179	2,4,5,6,8-pentamethyl nonane	1.11	0.95
180	2-methyl 3,5-diisopropyl heptane	0.78	0.56
181	3,7-dimethyl dodecane	0.74	0.62
182	3,8-diethyl decane	0.68	0.60
183	3-methyl tridecane	0.57	0.51
184	6-methyl tridecane	0.62	0.46
185	C14 tricycloalkane(s)*	0.60	0.66
186	C14 bicycloalkane(s)	0.71	0.66
187	C14 cycloalkane(s)	0.71	0.65
188	1,3-dipropyl-5-ethyl cyclohexane	0.94	0.91
189	trans-1-methyl-4-heptyl cyclohexane	0.58	0.53
190	octyl cyclohexane	0.60	0.51
191	unspeciated C14 alkane(s)	0.67	0.57
192	n-pentadecane; n-C15	0.53	0.50
193	branched C15 alkane(s)	0.60	0.50
194	2,6,8-trimethyl 4-isopropyl nonane	0.76	0.63
195	3,7-dimethyl tridecane	0.64	0.55
196	3,9-diethyl undecane	0.62	0.51
197	3-methyl tetradecane	0.53	0.48
198	6-methyl tetradecane	0.57	0.42
199	C15 tricycloalkane(s)*	0.56	0.63
200	C15 bicycloalkane(s)	0.69	0.62
201	C15 cycloalkane(s)	0.68	0.61
-		1	

-		1	
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
202	1,3,5-tripropyl cyclohexane	0.90	0.87
203	1-methyl-2-octyl cyclohexane	0.60	0.50
204	nonyl cyclohexane	0.54	0.47
205	1,3-diethyl-5-pentyl cyclohexane	0.99	0.66
206	unspeciated C15 alkane(s)	0.61	0.54
207	n-hexadecane; n-C16	0.52	0.45
208	branched C16 alkane(s)	0.54	0.47
209	2,7-dimethyl 3,5-diisopropyl heptane	0.69	0.52
210	3-methyl pentadecane	0.50	0.46
211	4,8-dimethyl tetradecane	0.55	0.49
212	7-methyl pentadecane	0.51	0.45
213	C16 tricycloalkane(s)*	0.53	0.59
214	C16 bicycloalkane(s)*	0.52	0.58
215	C16 cycloalkane(s)	0.61	0.55
216	1,3-propyl-5-butyl cyclohexane	0.77	0.75
217	1-methyl-4-nonyl cyclohexane	0.55	0.46
218	decyl cyclohexane	0.50	0.43
219	unspeciated C16 alkane(s)	0.55	0.49
220	n-heptadecane; n-C17	0.49	0.42
221	branched C17 alkane(s)	0.51	0.44
222	C17 tricycloalkane(s)*	0.50	0.55
223	C17 bicycloalkane(s)*	0.49	0.55
224	C17 cycloalkane(s)*	0.46	0.52
225	unspeciated C17 alkane(s)	0.52	0.46
226	n-octadecane; n-C18	0.44	0.40
227	branched C18 alkane(s)	0.48	0.42
228	C18 tricycloalkane(s)*	0.47	0.52
229	C18 bicycloalkane(s)*	0.46	0.52
230	C18 cycloalkane(s)*	0.44	0.49
231	unspeciated C18 alkane(s)	0.49	0.44
232	n-nonadecane; n-C19	0.44	0.38
233	branched C19 alkane(s)*	0.35	0.40
234	C19 tricycloalkane(s)*	0.44	0.49
235	C19 bicycloalkane(s)*	0.44	0.49
236	C19 cycloalkane(s)*	0.42	0.46
237	n-eicosane; icosane; n-C20	0.42	0.36
238	branched C20 alkane(s)*	0.34	0.38
239	C20 tricycloalkane(s)*	0.42	0.47
240	C20 bicycloalkane(s)*	0.42	0.46
241	C20 cycloalkane(s)*	0.39	0.44
242	n-heneicosane; n-C21	0.40	0.34
243	branched C21 alkane(s)*	0.32	0.36
244	C21 tricycloalkane(s)*	0.40	0.44
	1	1	

	T	MID Volus	Mou MD
	Organia Compound	MIR Value	New MIR
	Organic Compound	(July 18, 2001)	Value (October
245	C21 biovologlyano(a)*	0.40	2, 2010) 0.44
245 246	C21 bicycloalkane(s)*	0.40	0.42
	C21 cycloalkane(s)*		
247	n-docosane, n-C22	0.38	0.33
248	branched C22 alkane(s)*	0.31	0.34
249	C22 tricycloalkane(s)*	0.38	0.42
250	C22 bicycloalkane(s)*	0.38	0.42
251	C22 cycloalkane(s)*	0.36	0.40
050	Alkenes	0.00	0.00
252	ethene	9.08	9.00
253	propene	11.58	11.66
254	1,2-propadiene; allene*	8.11	8.45
255	1-butene	10.29	9.73
256	C4 terminal alkenes	10.29	9.73
257	isobutene	6.35	6.29
258	cis-2-butene	13.22	14.24
259	trans-2-butene	13.91	15.16
260	C4 internal alkenes	13.57	14.70
261	1,2-butadiene*	9.03	9.35
262	1,3-butadiene	13.58	12.61
263	C4 alkenes	11.93	12.22
264	1-pentene	7.79	7.21
265	3-methyl-1-butene	6.99	6.99
266	C5 terminal alkenes	7.79	7.21
267	2-methyl-1-butene	6.51	6.40
268	2-methyl-2-butene	14.45	14.08
269	cis-2-pentene	10.24	10.38
270	trans-2-pentene	10.23	10.56
271	2-pentenes	10.23	10.47
272	C5 internal alkenes	10.23	10.47
273	cyclopentene	7.38	6.77
274	trans-1,3-pentadiene*	12.10	12.50
275	cis-1,3-pentadiene*	12.10	12.50
276	1,4-pentadiene*	8.92	9.24
277	1,2-pentadiene*	7.59	7.86
278	3-methyl-1,2-butadiene*	9.95	10.29
279	isoprene; 2-methyl-1,3-butadiene	10.69	10.61
280	cyclopentadiene	7.61	6.98
281	C5 alkenes	9.01	8.84
282	1-hexene	6.17	5.49
283	3,3-dimethyl-1-butene	6.06	5.82
284	3-methyl-1-pentene	6.22	6.14
285	4-methyl-1-pentene	6.26	5.68
286	C6 terminal alkenes	6.17	5.49
	a of Maximum Ingramental 122		55

1		1	
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
287	2,3-dimethyl-1-butene	4.77	4.75
288	2-ethyl-1-butene	5.04	5.07
289	2-methyl-1-pentene	5.18	5.26
290	2,3-dimethyl-2-butene	13.32	12.49
291	2-methyl-2-pentene	12.28	11.00
292	cis-4-methyl-2-pentene*	7.88	8.12
293	cis-2-hexene	8.44	8.31
294	cis-3-hexene	8.22	7.61
295	cis-3-methyl-2-pentene	12.84	12.49
296	trans-3-methyl-2-pentene*	14.17	13.17
297	trans-4-methyl-2-pentene*	7.88	8.12
298	trans-2-hexene	8.44	8.62
299	trans-3-hexene	8.16	7.57
300	2-hexenes	8.44	8.47
301	C6 internal alkenes	8.44	8.47
302	3-methyl cyclopentene*	4.92	5.10
303	1-methyl cyclopentene	13.95	12.49
304	cyclohexene	5.45	5.00
305	trans,trans-2,4-hexadiene*	8.57	8.83
306	trans-1,3-hexadiene*	10.03	10.37
307	trans-1,4-hexadiene*	8.36	8.64
308	C6 cyclic olefins or di-olefins	8.65	8.68
309	C6 alkenes	6.88	6.98
310	trans-4-methyl-2-hexene	7.88	7.18
311	trans-3-methyl-2-hexene	14.17	10.07
312	2,3-dimethyl-2-hexene	10.41	8.53
313	1-heptene	4.20	4.43
314	3,4-dimethyl-1-pentene*	4.66	4.84
315	3-methyl-1-hexene*	4.24	4.41
316	2,4-dimethyl-1-pentene*	5.81	6.01
317	2,3-dimethyl-1-pentene*	4.97	5.15
318	3,3-dimethyl-1-pentene*	4.71	4.91
319	2-methyl-1-hexene*	4.92	5.10
320	2,3,3-trimethyl-1-butene	4.62	4.49
321	C7 terminal alkenes	4.20	4.43
322	4,4-dimethyl-cis-2-pentene*	6.45	6.64
323	2,4-dimethyl-2-pentene*	9.03	9.29
324	2-methyl-2-hexene*	9.22	9.47
325	3-ethyl-2-pentene*	9.49	9.75
326	3-methyl- <i>trans</i> -3-hexene*	9.44	9.72
327	cis-2-heptene*	6.94	7.16
328	2-methyl- <i>trans</i> -3-hexene*	6.03	6.25
329	3-methyl-cis-3-hexene*	9.44	9.72

-		1	
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
330	3,4-dimethyl- <i>cis</i> -2-pentene*	8.91	9.15
331	2,3-dimethyl-2-pentene*	10.41	9.74
332	cis-3-heptene	6.96	6.33
333	trans-4,4-dimethyl-2-pentene	6.99	6.64
334	trans-2-heptene	7.33	7.14
335	trans-3-heptene	6.96	6.32
336	cis-3-methyl-2-hexene	13.38	10.07
337	2-heptenes	6.96	6.32
338	C7 internal alkenes	6.96	6.32
339	1-methyl cyclohexene	7.81	6.61
340	4-methyl cyclohexene	4.48	4.18
341	C7 cyclic olefins or di-olefins	7.49	7.29
342	C7 alkenes	5.76	5.37
343	1-octene	3.45	3.25
344	C8 terminal alkenes	3.45	3.25
345	2,4,4-trimethyl-1-pentene*	3.24	3.34
346	3-methyl-2-isopropyl-1-butene	3.29	3.31
347	trans-2-octene*	5.81	6.00
348	2-methyl-2-heptene*	8.10	8.33
349	cis-4-octene	5.94	4.73
350	trans-2,2-dimethyl 3-hexene	5.97	5.00
351	trans-2,5-dimethyl 3-hexene	5.44	4.82
352	trans-3-octene	6.13	5.34
353	trans-4-octene	5.90	4.81
354	3-octenes	6.13	5.34
355	C8 internal alkenes	5.90	4.81
356	2,4,4-trimethyl-2-pentene	8.52	6.29
357	1,2-dimethyl cyclohexene	6.77	5.63
358	C8 cyclic olefins or di-olefins	6.01	4.89
359	C8 alkenes	4.68	4.03
360	1-nonene	2.76	2.60
361	C9 terminal alkenes	2.76	2.60
362	4,4-dimethyl-1-pentene*	3.00	3.13
363	4-nonene*	4.37	4.54
364	3-nonenes	5.31	4.54
365	C9 internal alkenes	5.31	4.54
366	trans-4-nonene	5.23	4.54
367	C9 cyclic olefins or di-olefins	5.40	4.62
368	C9 alkenes	4.03	3.57
369	1-decene	2.28	2.17
370	C10 terminal alkenes	2.28	2.17
371	3,4-diethyl-2-hexene	3.95	3.38
372	cis-5-decene	4.89	3.66
012	UIO O UCCOTIC	₹.∪∂	3.00

Organic Compound (July 18, 2001) Value (October 2, 2010) 373 trans-4-decene 4.50 3.87 374 C10 3-alkenes 4.50 3.87 375 C10 internal alkenes 4.50 3.87 376 C10 cyclic olefins or di-olefins 4.56 3.93 377 3-carene 3.21 3.24 378 a-pinene 4.29 4.51 379 B-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpinolene 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 selicenes		_	1	1
2001)			MIR Value	New MIR
373 trans-4-decene 4.50 3.87 374 C10 3-alkenes 4.50 3.87 375 C10 internal alkenes 4.50 3.87 376 C10 cyclic olefins or di-olefins 4.56 3.93 377 3-carene 3.21 3.24 378 o-pinene 4.29 4.51 379 B-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpinolenes 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins		Organic Compound		
374 C10 3-alkenes 4.50 3.87 375 C10 internal alkenes 4.50 3.87 376 C10 cyclic olefins or di-olefins 4.56 3.93 377 3-carene 3.21 3.24 378 o-pinene 4.29 4.51 379 β-pinene 3.28 3.52 380 d/limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpinolene* 3.39 3.31 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 391 C11 cyclic olefins or di-olefins 4				
375 C10 internal alkenes 4.50 3.87 376 C10 cyclic olefins or di-olefins 4.56 3.93 377 3-carene 3.21 3.24 378 α-pinene 4.29 4.51 379 β-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 387 C11 terminal alkenes 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C12 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes				
376 C10 cyclic olefins or di-olefins 4.56 3.93 377 3-carene 3.21 3.24 378 α-pinene 4.29 4.51 379 β-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpinolenes 3.39 3.31 384 terpinolenee 4.38 4.51 384 terpinolenee 4.38 4.51 384 terpinolenee 4.38 4.51 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 serlines 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.6				
377 3-carene 3.21 3.24 378 α-pinene 4.29 4.51 379 β-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 salkenes 4.23 3.60 380 C11 salkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.23 3.60 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 3.75 3.14 394 1-dodecene 1.72				
378 α-pinene 3.28 3.52 379 β-pinene 3.28 3.52 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 salkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C1 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 397 C12 terminal alkenes 3.75 3.14 397 C12 cyclic olefins or di-olefins		C10 cyclic olefins or di-olefins		+
379 β-pinene 3.28 3.52 380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 selkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 2-alkenes				
380 d-limonene 3.99 4.55 381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 salkenes 3.75 3.14 396 C12 -alkenes 3.75 3.14 397 C12 internal alkenes		α-pinene		
381 sabinene 3.67 4.19 382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefi		ļ. ·		3.52
382 terpinolene* 6.16 6.36 383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 3-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 400				
383 camphene* 4.38 4.51 384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 390 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tri	381	sabinene	3.67	4.19
384 terpene (monoterpenes) 3.79 4.04 385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 392 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 -alkenes 3.75 3.14 396 C12 -alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 <td></td> <td>terpinolene*</td> <td>6.16</td> <td>6.36</td>		terpinolene*	6.16	6.36
385 C10 alkenes 3.39 3.31 386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402		camphene*	4.38	4.51
386 1-undecene 1.95 1.87 387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 405 <td< td=""><td>384</td><td>terpene (monoterpenes)</td><td>3.79</td><td>4.04</td></td<>	384	terpene (monoterpenes)	3.79	4.04
387 C11 terminal alkenes 1.95 1.87 388 trans-5-undecene 4.23 3.60 389 C11 alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 402 C13 terminal alkenes 3.38 2.59	385	C10 alkenes	3.39	3.31
388 trans-5-undecene 4.23 3.60 389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 -alkenes 3.38 2.59 40	386	1-undecene	1.95	1.87
389 C11 3-alkenes 4.23 3.60 390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 <td< td=""><td>387</td><td>C11 terminal alkenes</td><td>1.95</td><td>1.87</td></td<>	387	C11 terminal alkenes	1.95	1.87
390 C11 internal alkenes 4.23 3.60 391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 402 C13 terminal alkenes 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 <t< td=""><td>388</td><td>trans-5-undecene</td><td>4.23</td><td>3.60</td></t<>	388	trans-5-undecene	4.23	3.60
391 C11 cyclic olefins or di-olefins 4.29 3.65 392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03	389	C11 3-alkenes	4.23	3.60
392 C11 alkenes 3.09 2.73 393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C1	390	C11 internal alkenes	4.23	3.60
393 C12 terminal alkenes 1.72 1.64 394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 selkenes 3.08 2.35 412 C	391	C11 cyclic olefins or di-olefins	4.29	3.65
394 1-dodecene 1.72 1.64 395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 402 C13 terminal alkenes 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 <	392	C11 alkenes	3.09	2.73
395 C12 2-alkenes 3.75 3.14 396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 402 C13 terminal alkenes 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 <td>393</td> <td>C12 terminal alkenes</td> <td>1.72</td> <td>1.64</td>	393	C12 terminal alkenes	1.72	1.64
396 C12 3-alkenes 3.75 3.14 397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38	394	1-dodecene	1.72	1.64
397 C12 internal alkenes 3.75 3.14 398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	395	C12 2-alkenes	3.75	3.14
398 trans-5-dodecene 3.74 3.14 399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	396	C12 3-alkenes	3.75	3.14
399 C12 cyclic olefins or di-olefins 3.79 3.18 400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	397	C12 internal alkenes	3.75	3.14
400 C12 alkenes 2.73 2.39 401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	398	trans-5-dodecene	3.74	3.14
401 1-tridecene 1.55 1.48 402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	399	C12 cyclic olefins or di-olefins	3.79	3.18
402 C13 terminal alkenes 1.55 1.48 403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	400	C12 alkenes	2.73	2.39
403 trans-5-tridecene 3.38 2.59 404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	401	1-tridecene	1.55	1.48
404 C13 3-alkenes 3.38 2.59 405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	402	C13 terminal alkenes	1.55	1.48
405 C13 internal alkenes 3.38 2.59 406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	403	trans-5-tridecene	3.38	2.59
406 C13 cyclic olefins or di-olefins 3.42 2.62 407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	404	C13 3-alkenes	3.38	2.59
407 C13 alkenes 2.46 2.03 408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	405	C13 internal alkenes	3.38	2.59
408 1-tetradecene 1.41 1.34 409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	406	C13 cyclic olefins or di-olefins	3.42	2.62
409 C14 terminal alkenes 1.41 1.34 410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	407	C13 alkenes	2.46	2.03
410 trans-5-tetradecene 3.08 2.35 411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	408	1-tetradecene	1.41	1.34
411 C14 3-alkenes 3.08 2.35 412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	409	C14 terminal alkenes	1.41	1.34
412 C14 internal alkenes 3.08 2.35 413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	410	trans-5-tetradecene	3.08	2.35
413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	411	C14 3-alkenes	3.08	2.35
413 C14 cyclic olefins or di-olefins 3.11 2.38 414 C14 alkenes 2.28 1.85	412	C14 internal alkenes	3.08	2.35
414 C14 alkenes 2.28 1.85	413	C14 cyclic olefins or di-olefins		
415 1-pentadecene 1.27 1.25	414	C14 alkenes	2.28	1.85
	415	1-pentadecene	1.27	1.25

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
44C	C15 terminal allegans	2001) 1.27	2, 2010)
416	C15 terminal alkenes		1.25
417	trans-5-pentadecene	2.82	2.16
418	C15 3-alkenes	2.82	2.16
419	C15 internal alkenes	2.82	2.16
420	C15 cyclic olefins or di-olefins	2.85	2.19
421	C15 alkenes	2.06	1.71
	Aromatic Hydrocarbons		
422	benzene	0.81	0.72
423	toluene	3.97	4.00
424	ethyl benzene	2.79	3.04
425	<i>m</i> -xylene	10.61	9.75
426	o-xylene	7.49	7.64
427	<i>p</i> -xylene	4.25	5.84
428	C8 disubstituted benzenes	7.48	7.76
429	isomers of ethylbenzene	5.16	6.57
430	styrene	1.95	1.73
431	unspeciated C8 aromatics*	7.42	7.64
432	C9 monosubstituted benzenes	2.20	2.03
433	n-propyl benzene	2.20	2.03
434	isopropyl benzene; cumene	2.32	2.52
435	C9 disubstituted benzenes	6.61	5.81
436	<i>m</i> -ethyl toluene	9.37	7.39
437	o-ethyl toluene	6.61	5.59
438	p-ethyl toluene	3.75	4.44
439	C9 trisubstituted benzenes	9.90	10.87
440	1,2,3-trimethyl benzene	11.26	11.97
441	1,2,4-trimethyl benzene	7.18	8.87
442	1,3,5-trimethyl benzene	11.22	11.76
443	isomers of propyl benzene	6.12	6.23
444	indene	3.21	1.55
445	indane	3.17	3.32
446	allylbenzene*	1.45	1.53
447	α-methyl styrene	1.72	1.53
448	C9 styrenes	1.72	1.53
449	β-methyl styrene*	0.95	1.01
450	unspeciated C9 aromatics*	7.92	7.99
451	C10 monosubstituted benzenes	1.97	2.36
452	n-butyl benzene	1.97	2.36
453	sec-butyl benzene	1.97	2.36
454	tert-butyl benzene*	1.89	1.95
455	o-cymene; 1-methyl-2-(1-methylethyl) benzene*	5.34	5.49
455 456	1-methyl-2-n-propyl benzene*	5.34	5.49
457	m-cymene; 1-methyl-3-(1-methylethyl) benzene*	6.92	7.10

		MID Valua	Now MD
	Organia Campaund	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
450	1. mosthyd 2 m manyd hannon a*	2001)	2, 2010)
458	1-methyl-3-n-propyl benzene*	6.92	7.10
459	1-methyl-4-n-propyl benzene*	4.31	4.43
460	C10 disubstituted benzenes	5.92	5.68
461	m-C10 disubstituted benzenes*	6.92	7.10
462	o-C10 disubstituted benzenes*	5.34	5.49
463	p-C10 disubstituted benzenes*	4.31	4.43
464	<i>m</i> -diethyl benzene	8.39	7.10
465	o-diethyl benzene	5.92	5.49
466	1-methyl-4-isopropyl benzene; <i>p</i> -cymene*	4.32	4.44
467	<i>p</i> -diethyl benzene	3.36	4.43
468	1,2,3-C10 trisubstituted benzenes*	9.89	10.15
469	1,2,4-C10 trisubstituted benzenes*	7.35	7.55
470	1,3,5-C10 trisubstituted benzenes*	9.80	10.08
471	1,2,3,4-tetramethyl benzene*	9.01	9.26
472	1,2,4,5-tetramethyl benzene*	9.01	9.26
473	1,2-dimethyl-3-ethyl benzene*	9.89	10.15
474	1,2-dimethyl-4-ethyl benzene *	7.35	7.55
475	1,3-dimethyl-2-ethyl benzene *	9.89	10.15
476	1,3-dimethyl-4-ethyl benzene*	7.35	7.55
477	1,3-dimethyl-5-ethyl benzene*	9.80	10.08
478	1,4-dimethyl-2-ethyl benzene*	7.35	7.55
479	1,2,3,5-tetramethyl benzene	8.25	9.26
480	C10 trisubstituted benzenes	8.86	9.26
481	C10 tetrasubstituted benzenes	8.86	9.26
482	butylbenzenes	5.48	5.76
483	methyl indanes	2.83	2.97
484	tetralin; 1,2,3,4-tetrahydronaphthalene	2.83	2.97
485	naphthalene	3.26	3.34
486	C10 styrenes	1.53	1.37
487	unspeciated C10 aromatics	5.48	7.07
488	n-pentyl benzene*	2.04	2.12
489	C11 monosubstituted benzenes	1.78	2.12
490	m-C11 disubstituted benzenes*	5.98	6.15
491	o-C11 disubstituted benzenes*	4.60	4.73
492	p-C11 disubstituted benzenes*	3.77	3.88
493	1-butyl-2-methyl benzene*	4.60	4.73
494	1-ethyl-2-n-propyl benzene*	4.60	4.73
495	o-tert-butyl toluene; 1-(1,1-dimethylethyl)-2-methyl	4.60	4.73
700	benzene*	7.00	7.70
496	1-methyl-3-n-butyl benzene*	5.98	6.15
497	p-isobutyl toluene; 1-methyl-4-(2-methylpropyl)	3.77	3.88
731	benzene*	5.77	3.00
498	C11 disubstituted benzenes	5.35	4.92
T00	O F F GIOGNOGITATION DOTIZOTION	0.00	7.32

Ī	T	MIDAGE	M - 1475
	Omerai's Orman and	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
100	4.0.0.044 trianhatitutadhan-a-a-	2001)	2, 2010)
499	1,2,3-C11 trisubstituted benzenes*	8.64	8.88
500	1,2,4-C11 trisubstituted benzenes*	6.44	6.62
501	1,3,5-C11 trisubstituted benzenes*	8.65	8.90
502	pentamethyl benzene*	7.91	8.13
503	1-methyl-3,5-diethyl benzene*	8.65	8.90
504	C11 trisubstituted benzenes	8.03	8.13
505	C11 tetrasubstituted benzenes	8.03	8.13
506	C11 pentasubstituted benzenes	8.03	8.13
507	pentyl benzenes	4.96	4.90
508	C11 tetralins or indanes	2.56	2.69
509	methyl naphthalenes	4.61	3.06
510	1-methyl naphthalene	4.61	3.06
511	2-methyl naphthalene	4.61	3.06
512	unspeciated C11 aromatics	4.96	6.95
513	C12 monosubstituted benzenes	1.63	1.90
514	m-C12 disubstituted benzenes*	5.35	5.49
515	o-C12 disubstituted benzenes*	4.11	4.23
516	p-C12 disubstituted benzenes*	3.38	3.49
517	1,3-di-n-propyl benzene*	4.11	4.23
518	1,4 di-isopropyl benzene*	3.38	3.49
519	3-isopropyl cumene; 1,3-di-isopropyl benzene*	5.35	5.49
520	C12 disubstituted benzenes	4.90	4.40
521	1,2,3-C12 trisubstituted benzenes*	7.74	7.95
522	1,2,4-C12 trisubstituted benzenes*	5.78	5.94
523	1,3,5-C12 trisubstituted benzenes*	7.79	8.02
524	1-(1,1-dimethylethyl)-3,5-dimethylbenzene*	7.79	8.02
525	C12 trisubstituted benzenes	7.33	7.30
526	C12 tetrasubstituted benzenes	7.33	7.30
527	C12 pentasubstituted benzenes	7.33	7.30
528	C12 hexasubstituted benzenes	7.33	7.30
529	hexyl benzenes	4.53	4.39
530	C12 tetralins or indanes	2.33	2.45
531	1-ethyl naphthalene*	2.69	2.78
532	C12 naphthalenes*	3.76	3.89
533	C12 monosubstituted naphthalene	4.20	2.78
534	C12 disubstituted naphthalenes	5.54	4.99
535	2,3-dimethyl naphthalene	5.54	4.99
536	dimethyl naphthalenes	5.54	4.99
537	unspeciated C12 aromatics	4.53	6.02
538	C13 monosubstituted benzenes	1.50	1.74
539 540	m-C13 disubstituted benzenes*	4.80	4.93
540 541	o-C13 disubstituted benzenes*	3.67	3.78
541	p-C13 disubstituted benzenes*	3.03	3.13

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
	organic compound	2001)	2, 2010)
542	C13 disubstituted benzenes	4.50	3.95
543	1,2,3-C13 trisubstituted benzenes*	6.94	7.13
544	1,2,4-C13 trisubstituted benzenes*	5.20	5.35
545	1,3,5-C13 trisubstituted benzenes*	7.04	7.24
546	C13 trisubstituted benzenes	6.75	6.57
547	C13 tetralins or indanes*	2.17	2.25
548	C13 naphthalenes*	3.45	3.57
549	C13 monosubstituted naphthalene	3.86	2.55
550	C13 disubstituted naphthalenes	5.08	4.58
551	C13 trisubstituted naphthalenes	5.08	4.58
552	unspeciated C13 aromatics*	4.88	4.81
553	C14 monosubstituted benzenes*	1.53	1.60
554	m-C14 disubstituted benzenes*	4.32	4.45
555	o-C14 disubstituted benzenes*	3.30	3.40
556	p-C14 disubstituted benzenes*	2.75	2.84
557	C14 disubstituted benzenes*	3.46	3.56
558	1,2,3-C14 trisubstituted benzenes*	6.31	6.49
559	1,2,4-C14 trisubstituted benzenes*	4.75	4.89
560	1,3,5-C14 trisubstituted benzenes*	6.44	6.63
561	C14 trisubstituted benzenes*	5.84	6.00
562	C14 tetralins or indanes*	2.01	2.09
563	C14 naphthalenes*	3.19	3.30
564	unspeciated C14 aromatics*	3.93	3.80
565	C15 monosubstituted benzenes*	1.42	1.48
566	C15 disubstituted benzenes*	3.15	3.25
567	<i>m</i> -C15 disubstituted benzenes*	3.93	4.04
568	o-C15 disubstituted benzenes*	3.00	3.09
569	p-C15 disubstituted benzenes*	2.51	2.59
570	C15 trisubstituted benzenes*	5.35	5.50
571	1,2,3-C15 trisubstituted benzenes*	5.77	5.94
572	1,2,4-C15 trisubstituted benzenes*	4.35	4.47
573	1,3,5-C15 trisubstituted benzenes*	5.92	6.10
574	C15 tetralins or indanes*	1.87	1.94
575	C15 naphthalenes*	2.97	3.06
576	unspeciated C15 aromatics*	3.35	3.20
577	C16 monosubstituted benzenes*	1.32	1.38
578	<i>m</i> -C16 disubstituted benzenes*	3.60	3.71
579	o-C16 disubstituted benzenes*	2.74	2.83
580	p-C16 disubstituted benzenes*	2.30	2.38
581	C16 disubstituted benzenes*	2.88	2.97
582	1,2,3-C16 trisubstituted benzenes*	5.31	5.46
583	1,2,4-C16 trisubstituted benzenes*	4.01	4.13
584	1,3,5-C16 trisubstituted benzenes*	5.47	5.63

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
	Crgame Compound	2001)	2, 2010)
585	C16 trisubstituted benzenes*	4.93	5.07
586	C16 tetralins or indanes*	1.75	1.82
587	C16 naphthalenes*	2.77	2.86
588	unspeciated C16 aromatics*	2.96	2.79
589	C17 monosubstituted benzenes*	1.24	1.30
590	C17 disubstituted benzenes*	2.71	2.79
591	C17 trisubstituted benzenes*	4.63	4.77
592	C17 tetralins or indanes*	1.64	1.70
593	C17 naphthalenes*	2.60	2.68
594	C18 monosubstituted benzenes*	1.17	1.23
595	C18 disubstituted benzenes*	2.55	2.63
596	C18 trisubstituted benzenes*	4.37	4.49
597	C18 tetralins or indanes*	1.55	1.61
598	C18 naphthalenes*	2.45	2.53
599	C19 monosubstituted benzenes*	1.11	1.16
600	C19 disubstituted benzenes*	2.42	2.49
601	C19 trisubstituted benzenes*	4.13	4.25
602	C19 tetralins or indanes*	1.46	1.52
603	C19 naphthalenes*	2.31	2.39
604	C20 monosubstituted benzenes*	1.05	1.10
605	C20 disubstituted benzenes*	2.29	2.36
606	C20 trisubstituted benzenes*	3.92	4.04
607	C20 tetralins or indanes*	1.39	1.44
608	C20 naphthalenes*	2.19	2.26
609	C21 monosubstituted benzenes*	1.00	1.05
610	C21 disubstituted benzenes*	2.18	2.25
611	C21 trisubstituted benzenes*	3.73	3.84
612	C21 tetralins or indanes*	1.32	1.37
613	C21 naphthalenes*	2.08	2.15
614	C22 monosubstituted benzenes*	0.96	1.00
615	C22 disubstituted benzenes*	2.08	2.14
616	C22 trisubstituted benzenes*	3.56	3.66
617	C22 tetralins or indanes*	1.26	1.31
618	C22 naphthalenes*	1.98	2.05
	Oxygenated Organics		
619	carbon monoxide	0.06	0.056
620	formaldehyde	8.97	9.46
621	methanol	0.71	0.67
622	formic acid	0.08	0.07
623	ethylene oxide	0.04	0.04
624	acetaldehyde	6.84	6.54
625	ethanol	1.69	1.53
626	dimethyl ether	0.93	0.81

	I	14514	
1		MIR Value	New MIR
1	Organic Compound	(July 18,	Value (October
007		2001)	2, 2010)
627	glyoxal	14.22	12.50
628	methyl formate	0.06	0.06
629	acetic acid	0.50	0.68
630	glycolaldehyde*	4.96	5.10
631	ethylene glycol	3.36	3.13
632	glycolic acid	2.67	2.38
633	peroxyacetic acid	12.62	0.54
634	acrolein	7.60	7.45
635	trimethylene oxide	5.22	4.56
636	propylene oxide	0.32	0.29
637	propionaldehyde	7.89	7.08
638	acetone	0.43	0.36
639	isopropyl alcohol	0.71	0.61
640	n-propyl alcohol	2.74	2.50
641	acrylic acid	11.66	11.38
642	methyl glyoxal	16.21	16.56
643	1,3-dioxolane	5.47	4.96
644	ethyl formate	0.52	0.48
645	methyl acetate	0.07	0.07
646	propionic acid	0.79	1.22
647	hydroxy acetone	3.08	3.23
648	propylene glycol	2.75	2.58
649	dimethoxy methane	1.04	0.94
650	2-methoxy ethanol	2.98	2.93
651	dimethyl carbonate; DMC	0.06	0.06
652	dihydroxy acetone	4.02	3.99
653	glycerol	3.27	3.15
654	furan	16.54	9.15
655	crotonaldehyde	10.07	9.39
656	methacrolein	6.23	6.01
657	cyclobutanone	0.68	0.62
658	methylvinyl ketone	8.73	9.65
659	tetrahydrofuran	4.95	4.31
660	1,2-epoxy butane	1.02	0.91
661	2-methyl propanal	5.87	5.25
662	butanal	6.74	5.97
663	C4 aldehydes	6.74	5.97
664	methyl ethyl ketone	1.49	1.48
665	isobutyl alcohol	2.24	2.51
666	n-butyl alcohol	3.34	2.88
667	sec-butyl alcohol	1.60	1.36
668	tert-butyl alcohol	0.45	0.41
669	diethyl ether	4.01	3.76
	s of Maximum Incremental 142	4.01	3.70

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
	Organic Compound	2001)	2, 2010)
670	gamma-butyrolactone	1.15	0.96
671	methacrylic acid	18.78	18.50
672	methyl acrylate	12.24	11.48
673	vinyl acetate	3.26	3.20
674	hydroxyl-methacrolein	6.61	6.24
675	biacetyl; diacetyl; butanedione	20.73	20.09
676	1,4-dioxane	2.71	2.62
677	ethyl acetate	0.64	0.63
678	methyl propionate	0.71	0.66
679	n-propyl formate	0.71	0.00
680	isopropyl formate	0.93	0.78
681	isobutyric acid	1.22	1.20
682	butanoic acid	1.78	1.82
683	methoxy-acetone	2.14	2.03
684	1,3-butanediol*	3.21	3.36
685	1,2-butandiol	2.21	2.52
686	1,4-butanediol	3.22	2.52
687	2,3-butanediol*	4.23	4.38
688	1-methoxy-2-propanol	2.62	2.44
689	2-ethoxy-ethanol	3.78	3.71
690	2-methoxy-1-propanol	3.78	3.71
690 691		4.01	3.01
692	3-methoxy-1-propanol	0.25	0.28
692 693	propylene carbonate methyl lactate	2.75	2.67
694		3.55	3.35
694 695	diethylene glycol malic acid	7.51	3.35 6.94
695 696	2-methyl furan*	8.02	8.30
		6.64	
697 608	3-methyl furan*		6.90 1.15
698 600	cyclopentanone	1.43	
699 700	C5 cyclic ketones	1.43	1.15
700 701	cyclopentanol	1.96	1.72
701	α-methyl tetrahydrofuran	4.62	3.97
702	tetrahydropyran	3.81	3.22
703	2-methyl-3-butene-2-ol	5.12	4.91
704	2,2-dimethylpropanal; pivaldehyde	5.40	4.89
705	3-methylbutanal; isovaleraldehyde	5.52	4.97
706 707	pentanal; valeraldehyde	5.76	5.08
707	C5 aldehydes	5.76	5.08
708	2-pentanone	3.07	2.81
709	3-pentanone	1.45	1.24
710	C5 ketones	3.07	2.81
711	methyl isopropyl ketone	1.64	1.65
712	2-pentanol	1.74	1.61

-			
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
713	3-pentanol	1.73	1.63
714	pentyl alcohol	3.35	2.83
715	isoamyl alcohol; 3-methyl-1-butanol	2.73	3.16
716	2-methyl-1-butanol	2.60	2.40
717	ethyl isopropyl ether	3.86	3.74
718	methyl n-butyl ether	3.66	3.15
719	methyl tert-butyl ether; MTBE	0.78	0.73
720	ethyl acrylate	8.78	7.77
721	methyl methacrylate	15.84	15.61
722	glutaraldehyde	4.79	4.31
723	lumped C5+ unsaturated carbonyl species*	6.18	6.38
724	2,4-pentanedione	1.02	1.01
725	tetrahydro-2-furanmethanol; tetrahydrofurfuryl alcohol	3.54	3.31
726	ethyl propionate	0.79	0.77
727	isopropyl acetate	1.12	1.07
728	methyl butyrate	1.18	1.09
729	methyl isobutyrate	0.70	0.61
730	n-butyl formate	0.95	0.83
731	propyl acetate	0.87	0.78
732	3-methyl butanoic acid	4.26	4.23
733	2,2-dimethoxy-propane	0.52	0.48
734	1-ethoxy-2-propanol	3.25	3.09
735	2-propoxy-ethanol	3.52	3.30
736	3-ethoxy-1-propanol	4.24	4.09
737	3-methoxy-1-butanol	0.97	3.87
738	2-methoxyethyl acetate	1.18	1.15
739	ethyl lactate	2.71	2.48
740	methyl isopropyl carbonate	0.69	0.62
741	2-(2-methoxyethoxy) ethanol	2.90	2.66
742	pentaerythritol	2.42	2.17
743	phenol	1.82	2.76
744	2-ethyl furan*	6.85	7.09
745	2,5-dimethyl furan*	7.60	7.88
746	cyclohexanone	1.61	1.35
747	C6 cyclic ketones	1.61	1.35
748	mesityl oxide; 2-methyl-2-penten-4-one	17.37	6.51
749	cyclohexanol	2.25	1.95
750	hexanal	4.98	4.35
751	C6 aldehydes	4.98	4.35
752	4-methyl-2-pentanone	4.31	3.88
753	methyl n-butyl ketone	3.55	3.14
754	methyl tert-butyl ketone	0.78	0.65
755	C6 ketones	3.55	3.14
			· · · · · · · · · · · · · · · · · · ·

	Ouronia Communed	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
750	A be seed	2001)	2, 2010)
756	1-hexanol	2.74	2.69
757	2-hexanol	2.46	2.08
758	4-methyl-2-pentanol; methyl isobutyl carbinol	2.89	2.64
759	di-n-propyl ether	3.24	3.08
760	ethyl n-butyl ether	3.86	3.48
761	ethyl tert-butyl ether	2.11	2.01
762	methyl tert-amyl ether; TAME	2.14	1.69
763	diisopropyl ether	3.56	3.52
764	ethyl methacrylate*	12.15	12.47
765	ethyl butyrate	1.25	1.17
766	isobutyl acetate	0.67	0.62
767	methyl pivalate	0.39	0.35
768	n-butyl acetate	0.89	0.83
769	n-propyl propionate	0.93	0.84
770	sec-butyl acetate	1.43	1.32
771	tert-butyl acetate; tBAc	0.20	0.18
772	diacetone alcohol	0.68	0.60
773	methyl pentanoate; methyl valerate*	1.00	1.05
774	1,2-dihydroxyhexane	2.75	2.55
775	2-methyl-2,4-pentanediol	1.04	1.45
776	ethylene glycol diethyl ether; 1,2-diethoxyethane	2.84	2.95
777	acetal (1,1-diethoxyethane)	3.68	3.58
778	1-propoxy-2-propanol; propylene glycol n-propyl ether	2.86	2.68
779	2-butoxy-ethanol	2.90	2.90
780	3 methoxy-3-methyl-butanol	1.74	2.88
781	n-propoxy-propanol	3.84	3.77
782	hydroxypropyl acrylate	5.56	4.90
783	1-methoxy-2-propyl acetate	1.71	1.70
784	2-ethoxyethyl acetate	1.90	1.84
785	2-methoxy-1-propyl acetate	1.12	1.12
786	methoxypropanol acetate	1.97	1.86
787	2-(2-ethoxyethoxy) ethanol	3.19	3.26
788	dipropylene glycol isomer (1-[2-hydroxypropyl]-2-	2.48	2.31
7 00	propanol)	2.40	2.01
789	dimethyl succinate	0.23	0.23
790	ethylene glycol diacetate	0.72	0.66
791	adipic acid; hexanedioic acid	3.37	3.08
792	triethylene glycol	3.41	3.25
793	benzaldehyde	0.00	0.00
793 794	C7 alkyl phenols	2.34	2.40
79 4 795	m-cresol	2.34	2.40
795 796		2.34	2.40
190	p-cresol	2.34	2.40

		MID Value	Now MID
	Organia Compound	MIR Value	New MIR
	Organic Compound	(July 18, 2001)	Value (October
797	o-cresol	2.34	2, 2010) 2.40
797 798	benzyl alcohol*	4.98	5.11
	·		
799	methoxybenzene; anisole*	6.49	6.66
800	C7 cyclic ketones	1.41	1.18
801	heptanal	4.23	3.69
802	C7 aldehydes	4.23	3.69
803	2-methyl-hexanal	3.97	3.54
804	2-heptanone	2.80	2.36
805	2-methyl-3-hexanone	1.79	1.53
806	di-isopropyl ketone	1.63	1.31
807	C7 ketones	2.80	2.36
808	5-methyl-2-hexanone	2.10	2.41
809	3-methyl-2-hexanone	2.81	2.55
810	1-heptanol	2.21	1.84
811	dimethylpentanol; 2,3-dimethyl-1-pentanol	2.51	2.23
812	4,4-diethyl-3-oxahexane; tert-amyl ethyl ether; TAEE	2.03	1.95
813	n-butyl acrylate	5.52	5.02
814	isobutyl acrylate	5.05	4.72
815	butyl propionate	0.89	0.84
816	amyl acetate; n-pentyl acetate	0.96	0.84
817	n-propyl butyrate	1.17	1.05
818	isoamyl acetate; 3-methyl-butyl acetate	1.18	1.09
819	2-methyl-1-butyl acetate	1.17	1.08
820	methyl hexanoate*	0.96	1.02
821	1-tert-butoxy-2-propanol	1.71	1.61
822	2-tert-butoxy-1-propanol	1.81	1.81
823	n-butoxy-2-propanol; propylene glycol n-butyl ether	2.70	2.72
824	ethyl 3-ethoxy propionate	3.61	3.58
825	diisopropyl carbonate	1.04	0.98
826	2-(2-propoxyethoxy) ethanol	3.00	2.85
827	dipropylene glycol methyl ether;	2.21	1.98
<u> </u>	1-methoxy-2-(2-hydroxypropoxy)-propane		
828	dipropylene glycol methyl ether;	2.70	2.58
	2-(2-methoxypropoxy)-1-propanol		
829	1,2-propylene glycol diacetate	0.94	0.61
830	dimethyl glutarate	0.51	0.42
831	2-[2-(2-methoxyethoxy) ethoxy] ethanol	2.62	2.58
832	tolualdehyde	0.00	0.00
833	4-vinyl phenol*	1.43	1.50
834	2,4-dimethyl phenol*	2.07	2.12
835	2,5-dimethyl phenol*	2.07	2.12
836	3,4-dimethyl phenol*	2.07	2.12
837	2,3-dimethyl phenol*	2.07	2.12
557	z,o annouty priorior	2.01	4.14

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
	Organic Gompound	2001)	2, 2010)
838	2,6-dimethyl phenol*	2.07	2.12
839	C8 alkyl phenols	2.07	2.12
840	β-phenethyl alcohol; 2-phenyl ethyl alcohol*	4.41	4.53
841	C8 cyclic ketones	1.25	1.05
842	2-butyl tetrahydrofuran	2.53	2.13
843	octanal	3.65	3.16
844	C8 aldehydes	3.65	3.16
845	2-octanone	1.66	1.40
846	C8 ketones	1.66	1.40
847	1-octanol	2.01	1.43
848	2-ethyl-1-hexanol	2.20	2.00
849	2-octanol	2.16	1.97
850	3-octanol	2.57	2.28
851	4-octanol	3.07	2.23
852	5-methyl-1-heptanol	1.95	1.79
853	di-isobutyl ether	1.29	1.20
854	di-n-butyl ether	3.17	2.84
855	2-phenoxyethanol; ethylene glycol phenyl ether	3.61	4.49
856	butyl methacrylate	9.09	8.70
857	isobutyl methacrylate	8.99	8.62
858	hexyl acetates*	0.74	0.80
859	2,3-dimethylbutyl acetate	0.84	0.75
860	2-methylpentyl acetate	1.11	0.73
861	3-methylpentyl acetate	1.31	1.07
862	4-methylpentyl acetate	0.92	0.82
863	isobutyl isobutyrate	0.61	0.60
864	n-butyl butyrate	1.12	1.08
865	n-hexyl acetate	0.87	0.69
866	methyl amyl acetate; 4-methyl-2-pentanol acetate	1.46	1.35
867	n-pentyl propionate	0.79	0.71
868	2-ethyl hexanoic acid	3.49	3.32
869	methyl heptanoate*	0.76	0.82
870	2-ethyl-1,3-hexanediol	2.62	2.05
871	2-n-hexyloxyethanol	2.45	2.09
872	2,2,4-trimethyl-1,3-pentanediol	1.74	1.54
873	phthalic anhydride*	2.50	2.58
874	methylparaben; 4-hydroxybenzoic acid, methyl ester*	1.66	1.71
875	2-butoxyethyl acetate	1.67	1.62
876	2-methoxy-1-(2-methoxy-1-methylethoxy)-propane;	2.09	2.02
	dipropylene glycol dimethyl ether	2.00	2.02
877	2-(2-butoxyethoxy)-ethanol	2.87	2.39
878	dipropylene glycol ethyl ether	2.75	2.72
879	dimethyl adipate	1.95	1.80

	T	MID Value	Now MD
	Organia Compayad	MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
000	2 (2 othorwothorw) othyl costate	2001)	2, 2010)
880	2-(2-ethoxyethoxy) ethyl acetate	1.50	1.48
881	2-[2-(2-ethoxyethoxy) ethoxy] ethanol	2.66	2.46
882	tetraethylene glycol	2.84	2.51
883	cinnamic aldehyde*	4.68	4.84
884	cinnamic alcohol*	0.84	0.89
885	2,3,5-trimethyl phenol*	1.86	1.90
886	2,3,6-trimethyl phenol*	1.86	1.90
887	C9 alkyl phenols	1.86	1.90
888	isophorone; 3,5,5-trimethyl-2-cyclohexenone	10.58	4.63
889	C9 cyclic ketones	1.13	0.94
890	2-propyl cyclohexanone	1.71	1.54
891	4-propyl cyclohexanone	2.08	1.85
892	1-nonene-4-one	3.39	3.14
893	trimethyl cyclohexanol	2.17	1.86
894	2-nonanone	1.30	1.08
895	di-isobutyl ketone; 2,6-dimethyl-4-heptanone	2.94	2.68
896	C9 ketones	1.30	1.08
897	dimethyl heptanol; 2,6-dimethyl-2-heptanol	1.07	0.94
898	2,6-dimethyl-4-heptanol	2.37	2.09
899	1-phenoxy-2-propanol	1.73	1.60
900	2,4-dimethylpentyl acetate	0.98	0.92
901	2-methylhexyl acetate	0.89	0.69
902	3-ethylpentyl acetate	1.24	1.10
903	3-methylhexyl acetate	1.01	0.89
904	4-methylhexyl acetate	0.91	0.82
905	5-methylhexyl acetate	0.79	0.59
906	isoamyl isobutyrate	0.89	0.82
907	n-heptyl acetate	0.73	0.65
908	methyl octanoate*	0.64	0.69
909	1-(butoxyethoxy)-2-propanol	2.08	1.93
910	dipropylene glycol n-propyl ether isomer #1	2.13	2.00
911	dipropylene glycol methyl ether acetate isomer #1	1.41	1.38
912	dipropylene glycol methyl ether acetate isomer #2	1.58	1.52
913	dipropylene glycol methyl ether acetate isomers	1.49	1.45
914	2-[2-(2-propoxyethoxy) ethoxy] ethanol	2.46	2.17
915	tripropylene glycol*	2.07	2.18
916	2,5,8,11-tetraoxatridecan-13-ol	2.15	1.97
917	glyceryl triacetate	0.57	0.55
918	anethol; p-propenyl-anisole*	0.76	0.80
919	C10 alkyl phenols	1.68	1.73
920	camphor*	0.45	0.49
921	α-terpineol	5.16	4.63
922	citronellol; 3,7-dimethyl-6-octen-1-ol*	5.63	5.79
J	join official of the state of t	0.00	0.70

148

1			· · · · · · · · · · · · · · · · · · ·
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
923	hydroxycitronella*; hydroxycitronellal	2.50	2.61
924	C10 cyclic ketones	1.02	0.86
925	menthol	1.70	1.43
926	linalool*	5.28	5.43
927	2-decanone	1.06	0.90
928	C10 ketones	1.06	0.90
929	8-methyl-1-nonanol; isodecyl alcohol	1.23	1.06
930	1-decanol	1.22	1.06
931	3,7-dimethyl-1-octanol	1.42	1.20
932	di-n-pentyl ether	2.64	2.15
933	1,2-diacetyl benzene*	2.17	2.25
934	2,4-dimethylhexyl acetate	0.93	0.76
935	2-ethyl-hexyl acetate	0.79	0.66
936	3,4-dimethyl-hexyl acetate	1.16	0.87
937	3,5-dimethyl-hexyl acetate	1.09	0.99
938	3-ethyl-hexyl acetate	1.03	0.91
939	3-methyl-heptyl acetate	0.76	0.67
940	4,5-dimethyl-hexyl acetate	0.86	0.68
941	4-methyl-heptyl acetate	0.72	0.66
942	5-methyl-heptyl acetate	0.73	0.61
943	n-octyl acetate	0.64	0.57
944	geraniol*	4.97	5.12
945	methyl nonanoate*	0.54	0.59
946	2-(2-ethylhexyloxy) ethanol	1.71	1.55
947	propylparaben*; 4-hydroxybenzoic acid, propyl ester	1.40	1.44
948	2-(2-hexyloxyethoxy) ethanol	2.03	1.84
949	glycol ether DPnB; dipropylene glycol n-butyl ether;	1.96	1.83
	1-(2-butoxy-1-methylethoxy)-2-propanol)		
950	2-(2-butoxyethoxy) ethyl acetate	1.38	1.38
951	2-[2-(2-butoxyethoxy) ethoxy] ethanol	2.24	1.96
952	tripropylene glycol monomethyl ether	1.90	1.92
953	C11 alkyl phenols	1.54	1.58
954	2-ethyl-hexyl acrylate	2.42	2.52
955	2,3,5-trimethyl-hexyl acetate	0.86	0.85
956	2,3-dimethyl-heptyl acetate	0.84	0.71
957	2,4-dimethyl-heptyl acetate	0.88	0.68
958	2,5-dimethyl-heptyl acetate	0.86	0.78
959	2-methyloctyl acetate	0.63	0.52
960	3,5-dimethyl-heptyl acetate	1.01	0.81
961	3,6-dimethyl-heptyl acetate	0.87	0.78
962	3-ethyl-heptyl acetate	0.71	0.63
963	4,5-dimethyl-heptyl acetate	0.71	0.69
964	4,6-dimethyl-heptyl acetate	0.90	0.09
304	T,0-uiineinyi-nepiyi aceiale	0.03	0.70

1			1
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
	4-methyloctyl acetate	0.68	0.61
966	5-methyloctyl acetate	0.67	0.56
967	n-nonyl acetate	0.58	0.52
968	methyl decanoate*	0.48	0.53
969	C12 alkyl phenols	1.42	1.46
970	2,6,8-trimethyl-4-nonanone; isobutyl heptyl ketone	1.86	1.66
971	trimethylnonanol, threo+erythro, 2,6,8-trimethyl-4-	1.55	1.33
	nonanol		
972	3,6-dimethyl-octyl acetate	0.88	0.79
973	3-isopropyl-heptyl acetate	0.71	0.54
	4,6-dimethyl-octyl acetate	0.85	0.76
975	methyl undecanoate*	0.45	0.50
976	1-hydroxy-2,2,4-trimethylpentyl-3-isobutyrate	0.92	0.89
	3-hydroxy-2,2,4-trimethylpentyl-1-isobutyrate	0.88	0.77
978	2,2,4-trimethyl-1,3-pentanediol monoisobutyrate and	0.89	0.81
0.0	isomers (texanol®)	0.00	
979	substituted C7 ester (C12)	0.92	0.81
980	substituted C9 ester (C12)	0.89	0.81
981	diethylene glycol mono-(2-ethylhexyl) ether*	1.46	1.56
982	diethyl phthalate*	1.56	1.62
983	dimethyl sebacate	0.48	0.43
984	diisopropyl adipate	1.42	1.28
985	3,6,9,12-tetraoxa-hexadecan-1-ol	1.90	1.72
	triethyl citrate*	0.66	0.70
987	3,5,7-trimethyl-octyl acetate	0.83	0.66
988	3-ethyl-6-methyl-octyl acetate	0.80	0.63
989	4,7-dimethyl-nonyl acetate	0.64	0.50
	methyl dodecanoate; methyl laurate	0.53	0.47
991	tripropylene glycol n-butyl ether*	1.55	1.64
	amyl cinnamal*	3.06	3.16
	,		
993	isobornyl methacrylate	8.64	5.51
	2,3,5,7-tetramethyl-octyl acetate	0.74	0.62
995	3,5,7-trimethyl-nonyl acetate	0.76	0.62
996	3,6,8-trimethyl-nonyl acetate	0.72	0.59
997	methyl tridecanoate*	0.40	0.45
	hexyl cinnamal*	2.86	2.96
	2,6-di-tert-butyl- <i>p</i> -cresol *	1.15	1.18
	2-ethyl-hexyl benzoate*	0.93	0.98
	2,4,6,8-tetramethyl-nonyl acetate	0.63	0.51
	3-ethyl-6,7-dimethyl-nonyl acetate	0.76	0.61
	4,7,9-trimethyl-decyl acetate	0.55	0.42
	methyl myristate; methyl tetradecanoate	0.47	0.43
1005	methyl <i>cis</i> -9-pentadecenoate*	1.63	1.80

-		_			
		MIR Value	New MIR		
	Organic Compound	(July 18,	Value (October		
		2001)	2, 2010)		
	methyl <i>cis</i> -9-hexadecenoate; methyl palmitoleate*	1.63	1.70		
1007	methyl pentadecanoate*	decanoate* 0.42			
1008	2,3,5,6,8-pentamethyl-nonyl acetate	0.74	0.47 0.65		
1009	3,5,7,9-tetramethyl-decyl acetate	0.58	0.48		
	0.57 Use the state of the state		0.77		
	1 dibutyl phthalate*		1.25		
	2,2,4-trimethyl-1,3-pentanediol diisobutyrate*	0.34	0.38		
	methyl hexadecanoate; methyl palmitate*	0.40	0.38		
	methyl cis-9-heptadecenoate*	1.56	1.62		
	methyl heptadecanoate; methyl margarate*	0.38	0.42		
	methyl linolenate; methyl <i>cis</i> , <i>cis</i> , <i>cis</i> , <i>cis</i> -9,12,15-	1.77	2.32		
	octadecatrienoate*				
1017	methyl linoleate; methyl cis,cis-9,12-	1.48	1.84		
	octadecadienoate*				
1018	methyl cis-9-octadecenoate; methyl oleate*	1.48	1.54		
	methyl octadecanoate; methyl stearate*	0.36	0.40		
	Other Organic Compounds				
1020	methylamine*	7.29	7.70		
	methyl chloride 0.03		0.04		
	methyl nitrite*	10.50	10.84		
	nitromethane 7.86		0.07		
	carbon disulfide*	0.23	0.25		
			0.04		
	dichloromethane0.07methyl bromide0.02		0.02		
	chloroform	0.03	0.02		
	methyl iodide*	0.00	0.00		
	carbon tetrachloride	0.00	0.00		
	chloropicrin; trichloro-nitro-methane*	1.80	1.85		
	methylene bromide	0.00	0.00		
	acetylene	1.25	0.95		
	dimethyl amine	9.37	3.17		
	ethyl amine	7.80	5.78		
	ethanolamine	5.97	6.81		
	vinyl chloride	2.92	2.83		
			0.29		
	7 ethyl chloride 0.25		0.29		
	3 1,1-difluoroethane; HFC-152a 0.00		0.02		
	9 methyl isothiocyanate*; MITC 0.31		0.06		
	,		6.68		
	chloroacetaldehyde*	12.00	12.30		
	1,1-dichloroethene*	1.69	1.79		
	trans-1,2-dichloroethene	0.81	1.70		
1045	cis-1,2-dichloroethene*	1.65	1.70		

-			I
		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
	1,1-dichloroethane	0.10	0.07
	1,2-dichloroethane	0.10 0.00	0.21
	1,1,1,2-tetrafluoroethane; HFC-134a	0.00	
	ethyl bromide	0.11	0.13
1050	trichloroethylene; TCE	0.60	0.64
1051	1,1,1-trichloroethane	0.00	0.01
1052	1,1,2-trichloroethane	0.06	0.09
1053	perchloroethylene; perc	0.04	0.03
1054	1,2-dibromoethane	0.05	0.10
1055	methyl acetylene	6.45	6.72
	acrylonitrile*	2.16	2.24
	trimethyl amine	7.06	6.32
	isopropyl amine*	6.93	7.23
	n-methyl acetamide**	19.70	20.19
	1-amino-2-propanol	13.42	5.42
	061 3-chloropropene*		12.22
	1-nitropropane	11.98 16.16	0.22
	2-nitropropane	16.16	0.11
	chloroacetone*	9.22	9.41
	trans-1,3-dichloropropene*	4.92	5.03
	cis-1,3-dichloropropene*	3.61	3.70
	1,3-dichloropropene mixture*	4.19	4.29
	1,2-dichloropropane*	0.28	0.29
	trans-1,3,3,3-tetrafluoropropene*; trans-HFO-1234ze	0.09	0.10
	2,3,3,3-tetrafluoropropene*; HFO-1234yf	0.27	0.28
	n-propyl bromide	0.35	0.42
	1,1,1,3,3-pentafluoropropane*; HFC-245fa	0.00	0.00
	3,3-dichloro-1,1,1,2,2-pentafluoropropane; HCFC-	0.00	0.00
	225ca*	0.00	0.00
1074	1,3-dichloro-1,1,2,2,3-pentafluoropropane; HCFC-	0.00	0.00
	225cb*	0.00	
1075	1,3-butadiyne*	5.53	5.76
	1-buten-3-yne; vinyl acetylene*	10.15	10.48
-	2-butyne	16.33	16.32
	ethyl acetylene	6.20	6.11
	tert-butyl amine*	0.00	0.00
	morpholine	15.43	1.98
	ethyl methyl ketone oxime; methyl ethyl ketoxime*	22.04	1.58
	dimethylaminoethanol; DMAE	4.76	5.62
	2-amino-1-butanol*	4.78	4.98
	2-amino-1 batanol 2-amino-2-methyl-1-propanol; AMP	15.08	0.25
	1-chlorobutane*	1.04	1.10
	diethylenetriamine**	13.03	15.53
1000	alouty for four diffinition	10.00	10.00

		MID Value	M M/D		
		MIR Value	New MIR		
	Organic Compound	(July 18,	Value (October		
400=		2001)	2, 2010)		
	diethanol-amine	4.05 2.4 ene 1.13 7.0			
	n-butyl bromide	0.60	0.82		
	1,1,1,3,3-pentafluorobutane; HFC-365mfc*	0.00	0.00 2.41		
	n-methyl-2-pyrrolidone 2.56				
1092	2-amino-2-ethyl-1,3-propanediol*	0.00	0.78		
1093	hydroxyethylethylene urea**	14.75	11.22		
1094	methoxy-perfluoro-n-butane*; methyl-nonafluoro-	0.00	0.00		
	butyl ether; HFE-7100 isomer				
1095	methoxy-perfluoro-isobutene*; methyl-nonafluoro-	0.00	0.00		
	isobutyl ether; HFE-7100 isomer				
1096	1,1,1,2,2,3,4,5,5,5-decafluoropentane; HFC-43-	0.00	0.00		
	10mee*				
1097	triethyl amine	16.60	3.84		
1098	triethylene diamine*	3.31	3.46		
	monochlorobenzene	0.36	0.32		
1100	nitrobenzene	0.07	0.06		
1101	p-dichlorobenzene 0.20		0.18		
	o-dichlorobenzene* 0.17		0.18		
	triethanolamine* 2.76		4.21		
1104	hexamethyl-disiloxane*	0.00	0.00		
	hydroxymethyl-disiloxane*	0.00	0.00		
	hexafluoro-benzene*	0.05	0.05		
1107	ethoxy-perfluoro-n-butane*; ethyl nonafluoro-butyl	0.01	0.01		
	ether;				
	HFE-7200 isomer				
1108	ethoxy-perfluoro-isobutane*; ethyl nonafluoro-isobutyl	0.01	0.01		
	ether;				
	HFE-7200 isomer				
1109	perfluoro-n-hexane*	0.00	0.00		
1110	2-chlorotoluene*	2.82	2.92		
1111	<i>m</i> -nitrotoluene*	0.48	0.50		
1112	benzotrifluoride	0.26	0.29		
1113	<i>p</i> -trifluoromethyl-chloro-benzene	0.11	0.13		
	<i>p</i> -toluene isocyanate	0.93	1.06		
	3-(chloromethyl)-heptane*		0.95		
	cyclosiloxane D4; octamethylcyclotetrasiloxane*	0.88	0.00		
	cumene hydroperoxide; 1-methyl-1-	12.61	9.08		
	phenylethylhydroperoxide**				
1118	2,4-toluene diisocyanate*	0.00	0.00		
	2,6-toluene diisocyanate*	0.00	0.00		
	toluene diisocyanate (mixed isomers)*	0.00	0.00		
	molinate; S-ethyl hexahydro-1 <i>H</i> -azepine-1-	1.43	1.51		
· · · — ·		1.15	1.01		

		MIR Value	New MIR
	Organic Compound	(July 18,	Value (October
		2001)	2, 2010)
	carbothioate*		
1122	EPTC; S-ethyl dipropyl-thiocarbamate*	1.58	1.67
1123	triisopropanolamine*	2.60	2.70
1124	dexpanthenol; pantothenylol**	9.35	6.15
1125	pebulate; S-propyl butylethylthiocarbamate*	1.58	1.67
1126	cyclosiloxane D5; decamethylcyclopentasiloxane*	0.00 0.00	
1127	thiobencarb; S-[4-chlorobenzyl] N,N-	0.65	0.68
	diethylthiolcarbamate*		
1128	methylene diphenylene diisocyanate	0.79	0.89
1129	lauryl pyrrolidone*	0.89	0.94
	Complex Mixtures		
1130	base ROG mixture	3.71	3.60
1131	kerosene*	1.46	1.62
1132	oxo-tridecyl acetate	0.67	0.55
1133	oxo-dodecyl acetate	0.72	0.59
1134	oxo-decyl acetate	0.83	0.70
1135	oxo-nonyl acetate	0.85	0.72
1136	oxo-octyl acetate	0.96	0.81
1137	oxo-heptyl acetate	0.97	0.83
1138	oxo-hexyl acetate	1.03	0.86
1139	turpentine*	4.12	4.28
1140	soy methyl esters; alkyl C16-C18 methyl esters*	1.52	1.58

^{*} This reactive organic compound was added to the Table of MIR Values on October 2, 2010, and may be used in aerosol coating products after this date, as specified in section 94522(h)(2)(B), title 17, California Code of Regulations

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

^{**} ULMIR (as defined in section 94521(a)(71), title 17, California Code of Regulations.)

§ 94701. MIR Values for Hydrocarbon Solvents.

(a) Aliphatic Hydrocarbon Solvents

Average MIR Notice	
Bin Point* Criteria Value (July 18, 2001)	MIR Value (October 2, 2010)
1 80-205 Alkanes (< 2% Aromatics) 2.08	1.42
2 80-205 N- & Iso-Alkanes (≥ 90% and < 2%	1.72
Aromatics) 1.59	1.31
3 80-205 Cyclo-Alkanes (≥ 90% and < 2%	
Aromatics) 2.52	1.63
4 80-205 Alkanes (2 to < 8% Aromatics) 2.24	1.47
5 80-205 Alkanes (8 to 22% Aromatics) 2.56	1.56
6 >205-340 Alkanes (< 2% Aromatics) 1.41	1.17
7 >205-340 N- & Iso-Alkanes (≥ 90% and < 2%	
Aromatics) 1.17	1.03
8 >205-340 Cyclo-Alkanes (≥ 90% and < 2%	
Aromatics) 1.65	1.44
9 >205-340 Alkanes (2 to < 8% Aromatics) 1.62	1.44
10 >205-340 Alkanes (8 to 22% Aromatics) 2.03	1.98
11 >340-460 Alkanes (< 2% Aromatics)	0.70
12 >340-460 N- & Iso-Alkanes (≥ 90% and < 2%	
Aromatics) 0.81	0.62
13 >340-460 Cyclo-Alkanes (≥ 90% and < 2%	
Aromatics) 1.01	0.86
14 >340-460 Alkanes (2 to < 8% Aromatics) 1.21	0.99
15 >340-460 Alkanes (8 to 22% Aromatics) 1.82	1.57
16 >460-580 Alkanes (< 2% Aromatics) 0.57	0.52
17 >460-580 N- & Iso-Alkanes (≥ 90% and < 2%	
Aromatics) 0.51	0.48
18 >460-580 Cyclo-Alkanes (≥ 90% and < 2%	
Aromatics) 0.63	0.60
19 >460-580 Alkanes (2 to < 8% Aromatics) 0.88	0.66
20 >460-580 Alkanes (8 to 22% Aromatics) 1.49	0.95

^{*} Average Boiling Point = (Initial Boiling Point + Dry Point) / 2

(b) Aromatic Hydrocarbon Solvents

Bin	Boiling Range (degrees F)	Criteria	MIR Value (July 18, 2001)	MIR Value (October 2, 2010)
21	280-290	Aromatic Content (≥ 98%)	7.37	7.64
22	320-350	Aromatic Content (≥ 98%)	7.51	7.60
23	355-420	Aromatic Content (≥ 98%)	8.07	6.85
24	450-535	Aromatic Content (≥ 98%)	5.00	3.82

ALTERNATIVE CONTROL PLAN REGULATION FOR CONSUMER PRODUCTS AND AEROSOL COATING PRODUCTS

ALTERNATIVE CONTROL PLAN REGULATION FOR CONSUMER PRODUCTS AND AEROSOL COATING PRODUCTS

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 4. Alternative Control Plan

94540. Purpose

The purpose of this article is to provide an alternative method to comply with the VOC standards for consumer products and aerosol coating products that are specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, sections 94507-94517 and 94520-94528. This alternative is provided by allowing responsible ACP parties the option of voluntarily entering into separate "alternative control plans" (ACPs) for consumer products and aerosol coating products, as specified in this article.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94541. Applicability

Only responsible ACP parties for consumer products or aerosol coating products may enter into an ACP. An ACP shall include only those consumer products or only those aerosol coating products which are subject to the VOC standards specified in sections 94509 or 94522, Title 17, California Code of Regulations. Consumer products and aerosol coating products shall not be included together in the same ACP.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94542. Definitions

- (a) For the purposes of this article, the following definitions shall apply:
- (1) "ACP Emissions" means the sum of the VOC emissions from every ACP product subject to an Executive Order approving an ACP, during the compliance period specified in the Executive Order, expressed to the nearest pound of VOC and calculated according to the following equation:

 $ACP\ Emissions = (Emissions)_1 + (Emissions)_2 + \dots + (Emissions)_N$

where,

$$Emissions = \frac{[VOC\ Content]\ x\ [Enforceable\ Sales]}{100}$$

For all products except for charcoal lighter material products and aerosol coating products:

$$VOC\ Content = \frac{[(B-C)\ x\ 100]}{A}$$

A = net weight of unit (excluding container and packaging)

B = total weight of all VOCs per unit, as defined in subsection (a)(31) of this section

C = total weight of all exempted VOCs per unit, as specified in section 94510

For charcoal lighter material products only:

$$VOC\ Content = \frac{[Certified\ Emissions\ x\ 100]}{Certified\ Use\ Rate}$$

Certified

Emissions = the emissions level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound CH₂ per start.

Certified

Use Rate = the usage level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the

nearest 0.001 pound certified product used per start.

For aerosol coating products only:

VOC Content = Percent VOC By Weight

"Percent VOC By Weight" shall have the same meaning as defined in section 94521(a)(46);

section 94521(a)(46);

For all products:

Enforceable

Sales

- = the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding container and packaging).
- 1,2,...N = each product in an ACP up to the maximum N.
- (2) "ACP Limit" means the maximum allowable ACP Emissions during the compliance period specified in an Executive Order approving an ACP, expressed to the nearest pound of VOC and calculated according to the following equation:

$$ACP\ Limit = (Limit)_1 + (Limit)_2 + \dots + (Limit)_N$$

where,

$$Limit = \frac{[ACP\ Standard]\ x\ [Enforceable\ Sales]}{100}$$

Enforceable

Sales

= the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding container and packaging).

ACP

Standard =

either the ACP product's Pre-ACP VOC Content, or the applicable VOC standard specified in sections 94509 or 94522, whichever is the lesser of the two.

Pre-ACP VOC

Content

= the lowest VOC content which the ACP product had between January 1, 1990 and the date on which the application for a proposed ACP is submitted to the Executive Officer, based on either the data on the product obtained from the March 12, 1991 Air Resources Board Consumer Products Survey, the data on the product obtained from the February 25, 1993 Air Resources Board Aerosol Paint Survey, or other accurate records available to the Executive Office, whichever yields the lowest VOC content for the product.

- 1,2,...N = each product in an ACP up to the maximum N.
- (3) "ACP Product" means any "consumer product" or any "aerosol coating product" subject to the VOC standards specified in sections 94509 or 94522, except those products that have been exempted under sections 94510 or 94523, or exempted as Innovative Products under section 94511.
- (4) "ACP Reformulation" or "ACP Reformulated" means the process of reducing the VOC Content of an ACP product, within the period that an ACP is in effect, to a level which is less than the current VOC content of the product.
- (5) "ACP Standard" means either the ACP product's Pre-ACP VOC Content or the applicable VOC standard specified in sections 94509 or 94522, whichever is the lesser of the two.
- (6) "Alternative Control Plan" or "ACP" means any emissions averaging program approved by the Executive Officer pursuant to the provisions of this article.
- (7) "Compliance Period" means the period of time, not to exceed one year, for which the ACP Limit and ACP Emissions are calculated and for which compliance with the ACP Limit is determined, as specified in the Executive Order approving an ACP.
- (8) "Contact Person" means a representative(s) that has been designated by the responsible ACP party for the purpose of reporting or maintaining any information specified in the Executive Order approving an ACP.
- (9) "Date-Code" means the day, month and year on which the ACP product was manufactured, filled, or packaged, or a code indicating such a date.
- (10) "Enforceable Sales" means the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding product container and packaging).
- (11) "Enforceable Sales Record" means a written, point-of-sale record or any other Executive Officer-approved system of documentation from which the mass, in pounds (less product container and packaging), of an ACP product sold to the end user in California during the applicable compliance period can be accurately documented. For the purposes of this article, "enforceable sales records" include, but are not limited to, the following types of records:

- (A) accurate records of direct retail or other outlet sales to the end user during the applicable compliance period;
- (B) accurate compilations, made by independent market surveying services, of direct retail or other outlet sales to the end users for the applicable compliance period, provided that a detailed method which can be used to verify any data comprising such summaries is submitted by the responsible ACP party and approved by the Executive Officer;
- (C) any other accurate product sales records approved by the Executive Officer as meeting the criteria specified in this subsection (a)(11).
- (D) for pesticides only, accurate mill assessment records for economic poisons, verified by the California Department of Pesticide Regulations, which cover the sales of ACP pesticide products during the applicable compliance period.
- (12) "Executive Order" means the document signed by the Executive Officer which includes the conditions and requirements of the ACP, and which allows manufacturers to sell ACP products in California pursuant to the requirements of this article.
- (13) "Gross California Sales" means the estimated total California sales of an ACP product during a specific compliance period (expressed to the nearest pound), based on either of the following methods, whichever the responsible ACP party demonstrates to the satisfaction of the Executive Officer will provide an accurate California sales estimate:
 - (A) apportionment of national or regional sales of the ACP product to California sales, determined by multiplying the average national or regional sales of the product by the fraction of the national or regional population, respectively, that is represented by California's current population; or
 - (B) any other documented method which provides an accurate estimate of the total current California sales of the ACP product.
- (14) "LVP" or "LVP Compound" means a low vapor pressure VOC which:
 - (A) has a vapor pressure less than 0.1 mm Hg at 20 degrees Centigrade, or
 - (B) if the vapor pressure is unknown, has more than 12 carbon atoms.
- (15) "LVP Content" means the total weight, in pounds, of LVP compounds in an ACP product multiplied by 100 and divided by the product's total net weight (in pounds, excluding container and packaging), expressed to the nearest 0.1.

- (16) "Missing Data Days" means the number of days in a compliance period for which the responsible ACP party has failed to provide the required Enforceable Sales or VOC Content data to the Executive Officer, as specified in the Executive Order approving an ACP.
- (17) "One-product business" means a responsible ACP party which sells, supplies, offers for sale, or manufactures for use in California:
 - (A) only one distinct ACP product, sold under one product brand name, which is subject to the requirements of sections 94509 or 94522, or
 - (B) only one distinct ACP product line subject to the requirements of sections 94509 or 94522, in which all the ACP products belong to the same product category(ies) and the VOC Contents in the products are within 98.0% and 102.0% of the arithmetic mean of the VOC Contents over the entire product line.
- (18) "Pre-ACP VOC Content" means the lowest VOC content of an ACP product between January 1, 1990 and the date on which the application for a proposed ACP is submitted to the Executive Officer, based on either the data on the product obtained from the March 12, 1991 Air Resources Board Consumer Products Survey, the data on the product obtained from the February 25, 1993 Air Resources Board Aerosol Paint Survey, or other accurate records available to the Executive Officer, whichever yields the lowest VOC content for the product.
- (19) "Product Line" means a group of products of identical form and function belonging to the same product category(ies).
- (20) "Reconcile" or "Reconciliation" means to provide sufficient VOC emission reductions to completely offset any shortfalls generated under the ACP during an applicable compliance period.
- (21) "Reconciliation of Shortfalls Plan" means the plan to be implemented by the responsible ACP party when shortfalls have occurred, as approved by the Executive Officer pursuant to section 94543(a)(7)(J).
- (22) "Responsible ACP Party" means the company, firm or establishment which is listed on the ACP product's label. If the label lists two or more companies, firms, or establishments, the "responsible ACP party" is the party which the ACP product was "manufactured for" or "distributed by", as noted on the label.
- (23) "Retail Outlet" means any establishment at which consumer products are sold, supplied, or offered for sale directly to consumers.

- (24) "Shortfall" means the ACP Emissions minus the ACP Limit when the ACP Emissions were greater than the ACP Limit during a specified compliance period, expressed to the nearest pound of VOC. "Shortfall" does not include emissions occurring prior to the date that the Executive Order approving an ACP is signed by the Executive Officer.
- (25) "Small Business" shall have the same meaning as defined in Government Code Section 11342(h).
- (26) "Surplus Reduction" means the ACP Limit minus the ACP Emissions when the ACP Limit was greater than the ACP Emissions during a given compliance period, expressed to the nearest pound of VOC. Except as provided in section 94547(c). "Surplus Reduction" does not include emissions occurring prior to the date that the Executive Order approving an ACP is signed by the Executive Officer.
- (27) "Surplus Trading" means the buying, selling, or transfer of Surplus Reductions between responsible ACP parties.
- (28) "Total Maximum Historical Emissions" (TMHE), means the total VOC emissions from all ACP products for which the responsible ACP party has failed to submit the required VOC Content or Enforceable Sales records. The TMHE shall be calculated for each ACP product during each portion of a compliance period for which the responsible ACP has failed to provide the required VOC Content or Enforceable Sales records. The TMHE shall be expressed to the nearest pound and calculated according to the following calculation:

$$TMHE = (MHE)_{1} + (MHE)_{2} + ... + (MHE)_{N}$$

$$MHE = \left[\frac{Highest \, VOC \, Content \, x \, Highest \, Sales}{100 \, x \, 365}\right] \, x \, Missing \, Data \, Days$$

where.

Highest

VOC Content = the maximum VOC content which the ACP product has contained in the previous 5 years, if the responsible ACP party has failed to meet the requirements for reporting VOC Content data (for any portion of the compliance period), as specified in the Executive Order approving the ACP, or the current actual VOC Content, if the responsible ACP party has provided all

Highest Sales

the maximum one-year Gross California Sales of the ACP product in the previous 5 years, if the responsible ACP party has failed to meet the requirements for reporting Enforceable Sales records (for any portion of the compliance period), as specified in the Executive Order approving the ACP, or the current actual one-year Enforceable Sales for the product, if the responsible ACP party has provided all required Enforceable Sales records (for the entire compliance period), as specified in the Executive Order approving the ACP.

Missing Data Days

- = the number of days in a compliance period for which the responsible ACP party has failed to provide the required Enforceable Sales or VOC Content data as specified in the Executive Order approving an ACP.
- 1, 2, ..., N = each product in an ACP, up to the maximum N, for which the responsible ACP party has failed to submit the required Enforceable Sales or VOC Content data as specified in the Executive Order approving an ACP.
- (29) "VOC Content" means the total weight of VOC in a product, expressed to the nearest 0.1 pounds of VOC per 100 pounds of product and calculated according to the following equation:

For all products except for charcoal lighter material products and aerosol coating products:

$$VOC\ Content = \frac{[(B-C)\ x\ 100]}{A}$$

A = net weight of unit (excluding container and packaging)

B = total weight of all VOCs per unit, as defined in section 94542(a)(31)

C = total weight of all exempted VOCs per unit, as specified in section 94510

For charcoal lighter material products only,

$$VOC\ Content = \frac{[Certified\ Emissions\ x\ 100]}{Certified\ Use\ Rate}$$

$$VOC\ Content = \frac{[Certified\ Emissions\ x\ 100]}{Certified\ Use\ Rate}$$

Certified

under section 94509(h), as determined pursuant to South Coast Air

Quality Management District Rule 1174 Ignition Method

Compliance Certification Protocol (Feb. 27, 1991), expressed to the

nearest 0.001 pound CH₂ per start.

Certified

Use Rate = the usage level for products approved by the Executive Officer

under section 94509(h), as determined pursuant to South Coast Air

Quality Management District Rule 1174 Ignition Method

Compliance Certification Protocol (Feb. 27, 1991), expressed to the

nearest 0.001 pound certified product used per start.

For aerosol coating products only:

VOC

Content = Percent VOC By Weight

"Percent VOC By Weight" shall have the same meaning as defined in section 94521(a)(46).

- (30) "VOC Standard" means the maximum allowable VOC content for an ACP product, determined as follows:
 - (A) the applicable VOC Standard specified in sections 94509 or 94522, for all ACP products except for charcoal lighter material;
 - (B) for charcoal lighter material products only, the VOC Standard for the purposes of this article shall be calculated according to the following equation:

$$VOC\ Standard = \frac{[0.020\ pound\ CH_{2}\ per\ start\ x\ 100]}{Certified\ Use\ Rate}$$

where,

0.020 = the certification emissions level for the Executive Officer-approved product, as specified in section 94509(h).

Certified

- Use Rate = the usage level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound certified product used per start.
- (31) "Volatile Organic Compound" or "VOC" shall have the same meaning as defined in section 94508(a).
- (32) "Working Day" means any day between Monday through Friday, inclusive, except for days that are federal holidays.
 - (a) The definitions set forth in sections 94508 and 94521, Title 17, California Code of Regulations, shall also apply to this article.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94543. Requirements and Process for Approval of an ACP

- (a) To be considered by the Executive Officer for approval, an application for a proposed ACP shall be submitted in writing to the Executive Officer by the responsible ACP party and shall contain all of the following:
 - (1) an identification of the contact persons, phone numbers, names and addresses of the responsible ACP party which is submitting the ACP application and will be implementing the ACP requirements specified in the Executive Order;
 - a statement of whether the responsible ACP party is a small business or a one-product business, as defined in section 94542(a)(17) and (25);
 - (3) a listing of the exact product brand name, form, available variations (flavors, scents, colors, sizes, etc.), and applicable product category(ies) for each distinct ACP product that is proposed for inclusion in the ACP;
 - (4) for each proposed ACP product identified in subsection (a)(3) of this section, a demonstration to the satisfaction of the Executive Officer that the enforceable sales records to be used by the responsible ACP party for tracking product sales meet the minimum criteria specified in subsection (a)(4)(E) of this section. To provide this demonstration, the responsible ACP party shall do all of the following:

- (A) provide the contact persons, phone numbers, names, street and mail addresses of all persons and businesses who will provide information that will be used to determine the Enforceable Sales;
- (B) determine the Enforceable Sales of each product using enforceable sales records as defined in section 94542(a)(11);
- (C) demonstrate, to the satisfaction of the Executive Officer, the validity of the Enforceable Sales based on enforceable sales records provided by the contact persons or the responsible ACP party;
- (D) calculate the percentage of the Gross California Sales, as defined in section 94542 (a)(13) which is comprised of Enforceable Sales;
- (E) determine which ACP products have Enforceable Sales which are 75.0% or more of the Gross California Sales. Only ACP products meeting this criteria shall be allowed to be sold in California under an ACP.
- (5) for each of the ACP products identified in subsection (a)(4)(E) of this section, the inclusion of the following:
 - (A) legible copies of the existing labels for each product;
 - (B) the VOC Content and LVP Content for each product. The VOC Content and LVP Content shall be reported for two different periods, as follows:
 - 1. the VOC and LVP contents of the product at the time the application for an ACP is submitted, and
 - 2. any VOC and LVP contents of the product, which have occurred at any time within the four years prior to the date of submittal of the application for an ACP, if either the VOC or LVP contents have varied by more than plus/minus ten percent (± 10.0%) of the VOC or LVP Contents reported in subsection (a)(5)(B)1., of this section.
- (6) a written commitment obligating the responsible ACP party to date-code every unit of each ACP product approved for inclusion in the ACP. The commitment shall require the responsible ACP party to display the datecode on each ACP product container or package no later than 5 working days after the date an Executive Order approving an ACP is signed by the Executive Officer.

- (7) an operational plan covering all the products identified under subsection (a)(4)(E) of this section for each compliance period that the ACP will be in effect. The operational plan shall contain all of the following:
 - (A) an identification of the compliance periods and dates for the responsible ACP party to report the information required by the Executive Officer in the Executive Order approving an ACP. The length of the compliance period shall be chosen by the responsible ACP party provided, however, that no compliance period shall be longer than 365 days. The responsible ACP party shall also choose the dates for reporting information such that all required VOC Content and Enforceable Sales data for all ACP products shall be reported to the Executive Officer at the same time and at the same frequency;
 - (B) an identification of specific enforceable sales records to be provided to the Executive Officer for enforcing the provisions of this article and the Executive Order approving an ACP. The enforceable sales records shall be provided to the Executive Officer no later than the compliance period dates specified in subsection (a)(7)(A) of this section;
 - (C) for a small business or a one-product business which will be relying to some extent on Surplus Trading to meet its ACP Limits, a written commitment from the responsible ACP party(ies) that they will be transfer the Surplus Reductions to the small business or one-product business upon approval of the ACP;
 - (D) for each ACP product, all VOC content levels which will be applicable for the ACP product during each compliance period. The plan shall also identify the specific method(s) by which the VOC Content will be determined and the statistical accuracy and precision (repeatability and reproducibility) calculated for each specified method.
 - (E) the projected Enforceable Sales for each ACP product at each different VOC Content for every compliance period that the ACP will be in effect:
 - (F) a detailed demonstration showing the combination of specific ACP reformulations or Surplus Trading (if applicable) that is sufficient to ensure that the ACP Emissions will not exceed the ACP Limit for each compliance period that the ACP will be in effect, the approximate date within each compliance period that such reformulations or Surplus Trading are expected to occur, and the extent to which the VOC Contents of the ACP products will be reduced (i.e., by ACP reformulation). This demonstration shall use the equations specified in

section 94542(a)(1) and (a)(2) for projecting the ACP Emissions and ACP Limits during each compliance period. This demonstration shall also include all VOC Content levels and projected Enforceable Sales for all ACP products to be sold in California during each compliance period;

- (G) a certification that all reductions in the VOC Content of a product will be real, actual reductions that do not result from changing product names, mischaracterizing ACP product reformulations that have occurred in the past, or any other attempts to circumvent the provisions of this article;
- (H) written explanations of the date-codes that will be displayed on each ACP product's container or packaging;
- (I) a statement of the approximate dates by which the responsible ACP party plans to meet the applicable VOC standards for each product in the ACP:
- (J) an operational plan ("reconciliation of shortfalls plan") which commits the responsible ACP party to completely reconcile any shortfalls in any and all cases, even, to the extent permitted by law, if the responsible ACP party files for bankruptcy protection. The plan for reconciliation of shortfalls shall contain all of the following:
 - a clear and convincing demonstration of how shortfalls of up to 5%, 10%, 15%, 25%, 50%, 75% and 100% of the applicable ACP Limit will be completely reconciled within 90 working days from the date the shortfall is determined;
 - 2. a listing of the specific records and other information that will be necessary to verify that the shortfalls were reconciled as specified in this subsection (a)(7)(J);
 - a commitment to provide any record or information requested by the Executive Officer to verify that the shortfalls have been completely reconciled.
- (8) a declaration, signed by a legal representative for the responsible ACP party, which states that all information and operational plans submitted with the ACP application are true and correct.
- (b) (1) In accordance with the time periods specified in section 94544, the Executive Officer shall issue an Executive Order approving an ACP which meets the

requirements of this article. The Executive Officer shall specify such terms and conditions as are necessary to ensure that the emissions from the ACP products do not exceed the emissions that would have occurred if the ACP products subject to the ACP had met the VOC standards specified in section 94509 or the VOC standards specified in section 94522, whichever are applicable. The ACP shall also include:

- (A) only those ACP products for which the Enforceable Sales are at least 75.0% of the Gross California Sales, as determined in subsection (a)(4)(E) of this section:
- (B) a reconciliation of shortfalls plan meeting the requirements of this article;
- (C) operational terms, conditions, and data to be reported to the Executive Officer to ensure that all requirements of this article are met.
- (2)The Executive Officer shall not approve an ACP submitted by a responsible ACP party if the Executive Officer determines, upon review of the responsible ACP party's compliance history with past or current ACPs or the requirements for consumer products or the requirements for aerosol coating products (specified in sections 94507-94517 and sections 94520-94528, Title 17, California Code of Regulations), that the responsible ACP party has a recurring pattern of violations and has consistently refused to take the necessary steps to correct those violations.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94544. ACP Approval Timeframes

- (a) The Executive Officer shall take appropriate action on an ACP within the following time periods:
 - (1) Within 30 working days of receipt of an ACP application, the Executive Officer shall inform the applicant in writing that either:
 - (A) the application is complete and accepted for filing, or
 - (B) the application is deficient, and identify the specific information required to make the application complete.

- (2) Within 30 working days of receipt of additional information provided in response to a determination that an ACP application is deficient, the Executive Officer shall inform the applicant in writing that either:
 - (A) the additional information is sufficient to make the application complete, and the application is accepted for filing, or
 - (B) the application is deficient, and identify the specific information required to make the application complete.
- (3) If the Executive Officer finds that an application meets the requirements of section 94543 of this article, then he or she shall issue an Executive Order in accordance with the requirements of this article. The Executive Officer shall act to approve or disapprove a complete application within 90 working days after the application is deemed complete.
- (b) Before the end of each time period specified in this section, the Executive Officer and the responsible ACP party may mutually agree to a longer time period for the Executive Officer to take the appropriate action.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94545. Recordkeeping and Availability of Requested Information

- (a) All information specified in the Executive Order approving an ACP shall be maintained by the responsible ACP party for a minimum of three years after such records are generated. Such records shall be clearly legible and maintained in good condition during this period.
- (b) The records specified in subsection (a) of this section shall be made available to the Executive Officer or his or her authorized representative:
 - (1) immediately upon request, during an on-site visit to a responsible ACP party, or
 - (2) within five working days after receipt of a written request from the Executive Officer, or
 - (3) within a time period mutually agreed upon by both the Executive Office and the responsible ACP party.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94546. Violations

- (a) Any person who commits a violation of this article is subject to the penalties specified in Health and Safety Code, section 42400 et seq. Failure to meet any requirement of this article or any condition of an applicable Executive Order shall constitute a single, separate violation of this article for each day until such requirement or condition is satisfied, except as otherwise provided in subsections (b) through (h) of this section.
- (b) False reporting of any information contained in an ACP application, or any supporting documentation or amendments thereto, shall constitute a single, separate violation of the requirements of this article for each day that the approved ACP is in effect.
- (c) Any exceedance during the applicable compliance period of the VOC content specified for an ACP product in the Executive Order approving an ACP shall constitute a single, separate violation of the requirements of this article for each ACP product which exceeds the specified VOC Content that is sold, supplied, offered for sale, or manufactured for use in California.
- (d) Any of the following actions shall each constitute a single, separate violation of the requirements of this article for each day after the applicable deadline until the requirement is satisfied:
 - (1) Failure to report data (i.e., "missing data") or failure to report data accurately (i.e., "inaccurate data") in writing to the Executive Officer regarding the VOC content, LVP Content, Enforceable Sales, or any other information required by any deadline specified in the applicable Executive Order;
 - (2) False reporting of any information submitted to the Executive Officer for determining compliance with the ACP requirements;
 - (3) Failure to completely implement the reconciliation of shortfalls plan that is set forth in the Executive Order, within 30 working days from the date of written notification of a shortfall by the Executive Officer;

- (4) Failure to completely reconcile the shortfall as specified in the Executive Order, within 90 working days from the date of written notification of a shortfall by the Executive Officer.
- (e) False reporting or failure to report any of the information specified in section 94547(b)(9), or the sale or transfer of invalid Surplus Reductions, shall constitute a single, separate violation of the requirements of this article for each day during the time period for which the Surplus Reductions are claimed to be valid.
- (f) Except as provided in subsection (g) of this section, any exceedance of the ACP Limit for any compliance period that the ACP is in effect shall constitute a single, separate violation of the requirements of this article for each day of the applicable compliance period. The Executive Officer shall determine whether an exceedance of the ACP Limit has occurred as follows:
 - (1) If the responsible ACP party has provided all required information for the applicable compliance period specified in the Executive Order approving an ACP, then the Executive Officer shall determine whether an exceedance has occurred using the Enforceable Sales records and VOC Content for each ACP product, as reported by the responsible ACP party for the applicable compliance period;
 - (2) If the responsible ACP party has failed to provide all the required information specified in the Executive Order for an applicable compliance period, the Executive Officer shall determine whether an exceedance of the ACP Limit has occurred as follows:
 - (A) for the missing data days, the Executive Officer shall calculate the total maximum historical emissions, as specified in section 94542(a)(28);
 - (B) for the remaining portion of the compliance period which are not missing data days, the Executive Officer shall calculate the emissions for each ACP product using the Enforceable Sales records and VOC Content that were reported for that portion of the applicable compliance period;
 - (C) the ACP Emissions for the entire compliance period shall be the sum of the total maximum historical emissions, determined pursuant to subsection (f)(2)(A), and the emissions determined pursuant to subsection (f)(2)(B);
 - (D) the Executive Officer shall calculate the ACP Limit for the entire compliance period using the ACP Standards applicable to each ACP product and the Enforceable Sales records specified in subsection (f)(2)(B). The Enforceable Sales for each ACP Product during missing data days, as specified in subsection (f)(2)(A), shall be zero (0);

- (E) an exceedance of the ACP Limit has occurred when the ACP Emissions, determined pursuant to subsection (f)(2)(C), exceeds the ACP Limit, determined pursuant to subsection (f)(2)(D).
- (g) If a violation specified in subsection (f) of this section occurs, the responsible ACP party may, pursuant to this paragraph, establish the number of violations as calculated according to the following equation:

where,

NEV = number of ACP Limit violations

ACP Emissions = the ACP Emissions for the compliance period

ACP Limit = the ACP Limit for the compliance period

The responsible ACP party may determine the number of ACP Limit violations pursuant to this paragraph only if it has provided all required information for the applicable compliance period, as specified in the Executive Order approving the ACP. By choosing this option, the responsible ACP party waives any and all legal objections to the calculation of the ACP Limit violations pursuant to this subsection (g).

- (h) In assessing the amount of penalties for any violation occurring pursuant to subsections (a) (g) of this section, the circumstances identified in Health and Safety Code section 42403(b) shall be taken into consideration.
- (i) A cause of action against a responsible ACP party under this section shall be deemed to accrue on the date(s) when the records establishing a violation are received by the Executive Officer.
- (j) The responsible ACP party is fully liable for compliance with the requirements of this article, even if the responsible ACP party contracts with or otherwise relies on another person to carry out some or all of the requirements of this article.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code.

Reference: Sections 39002, 39600, 40000, 41712, 42400-42403 and 42404.5, Health and Safety Code; and section 338(k), Code of Civil Procedure.

94547. Surplus Reductions and Surplus Trading

- (a) The Executive Officer shall issue Executive Orders (Surplus Reduction Certificates) which establish and quantify, to the nearest pound of VOC reduced, any Surplus Reductions achieved by a responsible ACP party operating under an ACP. The Surplus Reductions can be bought from, sold to, or transferred to a responsible ACP party operating under an ACP, as provided in subsection (b) of this section. All Surplus Reductions shall be calculated by the Executive Officer at the end of each compliance period within the time specified in the approved ACP. Surplus Reduction Certificates shall not constitute instruments, securities, or any other form of property.
- (b) The issuance, use, and trading of all Surplus Reductions shall be subject to the following provisions:
 - (1) For the purposes of this article, VOC reductions from sources of VOCs other than consumer products subject to the VOC standards specified in section 94509 or aerosol coating products subject to the VOC standards specified in section 94522 may not be used to generate Surplus Reductions;
 - (2) Surplus Reductions are valid only when generated by a responsible ACP party, and only while that responsible ACP party is operating under an approved ACP;
 - (3) Surplus Reductions are valid only after the Executive Officer has issued an Executive Order pursuant to subsection (a) of this section.
 - (4) Any Surplus Reductions issued by the Executive Officer may be used by the responsible ACP party who generated the surplus until the reductions expire, are traded, or until the ACP is cancelled pursuant to section 94551;
 - (5) Surplus Reductions cannot be applied retroactively to any compliance period prior to the compliance period in which the reductions were generated;
 - (6) Except as provided in subsection (b)(7)(B) of this section, only small or one-product businesses selling products under an approved ACP may purchase Surplus Reductions. An increase in the size of a small business or one-product business shall have no effect on Surplus Reductions purchased by that business prior to the date of the increase.
 - (7) While valid, Surplus Reductions can be used only for the following purposes:

- (A) to adjust either the ACP Emissions of either the responsible ACP party who generated the reductions or the responsible ACP party to which the reductions were traded, provided the Surplus Reductions are not to be used by any responsible ACP party to further lower its ACP Emissions when its ACP Emissions are equal to or less than the ACP Limit during the applicable compliance period; or
- (B) to be traded for the purpose of reconciling another responsible ACP party's shortfalls, provided such reconciliation is part of the reconciliation of shortfalls plan approved by the Executive Officer pursuant to section 94543(a)(7)(J).
- (8) A valid Surplus Reduction shall be in effect starting five (5) days after the date of issuance by the Executive Officer, for a continuous period equal to the number of days in the compliance period during which the Surplus Reduction was generated. The Surplus Reduction shall then expire at the end of its effective period.
- (9) At least five (5) working days prior to the effective date of transfer of Surplus Reductions, both the responsible ACP party which is selling Surplus Reductions and the responsible ACP party which is buying the Surplus Reductions shall, either together or separately, notify the Executive Officer in writing of the transfer. The notification shall include all of the following:
 - (A) the date the transfer is to become effective;
 - (B) the date the Surplus Reductions being traded are due to expire;
 - (C) the amount (in pounds of VOCs) of Surplus Reductions that are being transferred;
 - (D) the total purchase price paid by the buyer for the Surplus Reductions;
 - the contact persons, names of the companies, street and mail addresses, and phone numbers of the responsible ACP parties involved in the trading of the Surplus Reductions;
 - (F) a copy of the Executive Officer-issued Surplus Reductions Certificate, signed by both the seller and buyer of the certificate, showing transfer of all or a specified portion of the Surplus Reductions. The copy shall show the amount of any remaining non-traded Surplus Reductions, if applicable, and shall show their expiration date. The copy shall indicate that both the buyer and seller of the Surplus Reductions fully understand the conditions and limitations placed upon the transfer of the Surplus Reductions and accept

- full responsibility for the appropriate use of such Surplus Reductions as provided in this section.
- (10) Surplus Reduction Credits shall not be traded between an ACP for consumer products and an ACP for aerosol coating products.
- (c) Limited-Use Surplus Reduction Credits for Early Reformulations of ACP Products
 - (1) For the purposes of this subsection (c), "early reformulation" means an ACP product which is reformulated to result in a reduction in the product's VOC Content, and which is sold, supplied, or offered for sale in California for the first time during the one-year (365 day) period immediately prior to the date on which the application for a proposed ACP is submitted to the Executive Officer. "Early reformulation" does not include any reformulated ACP products which are sold, supplied, or offered for sale in California more than one year prior to the date on which the ACP application is submitted to the Executive Officer.
 - (2) If requested in the application for a proposed ACP, the Executive Officer shall, upon approval of the ACP, issue Surplus Reduction Credits for early reformulation(s) of ACP product(s), provided that all of the following documentation has been provided by the responsible ACP party to the satisfaction of the Executive Officer:
 - (A) accurate documentation showing that the early reformulation(s) reduced the VOC content of the ACP product(s) to a level which is below the Pre-ACP VOC content of the product(s), or below the applicable VOC standard(s) specified in sections 94509 or 94522, whichever is the lesser of the two:
 - (B) accurate documentation demonstrating that the early reformulated ACP product(s) was sold in California retail outlets within the time period specified in subsection (c)(1);
 - (C) accurate sales records for the early reformulated ACP product(s) which meet the definition of "Enforceable Sales Records" in section 94542(a)(11), and which demonstrate that the Enforceable Sales for the ACP product(s) are at least 75.0% of the Gross California Sales for the product(s), as specified in section 94543(a)(4);
 - (D) accurate documentation for the early reformulated ACP product(s) which meets the requirements specified in sections 94543 (a)(3)-(4), (a)(7)(G)-(H), and (a)(8), and which identifies the specific test methods for verifying the claimed early reformulation(s) and the statistical accuracy and precision of the test methods as specified in section 94543 (a)(7)(D).

(3) Surplus Reduction Credits issued pursuant to this subsection (c) shall be calculated separately for each early reformulated ACP product by the Executive Officer according to the following equation:

$$SR = Enforceable \ Sales \ x \frac{([VOC\ Content\]_{initial}\ [VOC\ Content\]_{final})}{100}$$

where,

SR = Surplus Reductions for the ACP product, expressed to the nearest pound

Enforceables

Sales = the Enforceable Sales for the early reformulated ACP product,

expressed to the nearest pound of ACP product ,

VOC

Content_{initial} = the Pre-ACP VOC content of the ACP product, or the applicable VOC standard specified in sections 94509 or 94522, whichever

is the lesser of the two, expressed to the nearest 0.1 pounds of

VOC per 100 pounds of ACP product,

VOC

Content_{final} = the VOC Content of the early reformulated ACP product after

the early reformulation is achieved, expressed to the nearest 0.1

pounds of VOC per 100 pounds of ACP product.

- (4) The use of Surplus Reduction Credits issued pursuant to this subsection (c) shall be subject to all of the following provisions:
 - (A) Surplus Reduction Credits shall be used solely to reconcile the responsible ACP party's shortfalls, if any, generated during the first compliance period occurring immediately after the issuance of the Executive Order approving an ACP, and shall not be used for any other purpose;
 - (B) Surplus Reduction Credits shall not be transferred to, or used by, any other responsible ACP party;
 - (C) Surplus Reduction Credits shall not be traded between an ACP for consumer products and an ACP for aerosol coating products;

(D) Except as provided in this subsection (c), Surplus Reduction Credits shall be subject to all requirements applicable to Surplus Reductions and Surplus Trading, as specified in subsections 94547(a) and (b)

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94548. Reconciliation of Shortfalls

- (a) At the end of each compliance period, the responsible ACP party shall make an initial calculation of any shortfalls occurring in that compliance period, as specified in the Executive Order approving the ACP. Upon receipt of this information, the Executive Officer shall determine the amount of any shortfall that has occurred during the compliance period, and shall notify the responsible ACP party of this determination.
- (b) The responsible ACP party shall implement the reconciliation of shortfalls plan as specified in the Executive Order approving the ACP, within 30 working days from the date of written notification of a shortfall by the Executive Officer;
- (c) All shortfalls shall be completely reconciled within 90 working days from the date of written notification of a shortfall by the Executive Officer, by:
 - (1) implementing the reconciliation of shortfalls plan specified in the Executive Order approving the ACP, or
 - (2) using hairspray emission reduction credits (HERCs) as specified in section 94567(c), Title 17, California Code of Regulations.
- (d) All requirements specified in the Executive Order approving an ACP, including all applicable ACP Limits, shall remain in effect while any shortfalls are in the process of being reconciled.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94549. Notification of Modifications to an ACP by the Responsible ACP Party

- (a) Modifications That Do Not Require Executive Officer Pre-Approval: The responsible ACP party shall notify the Executive Officer, in writing, of any change in an ACP product's:
 - (1) product name, (2) product formulation, (3) product form, (4) product function,

- (5) applicable product category(ies), (6) VOC Content, (7) LVP Content, (8) date-codes, or (9) recommended product usage directions, no later than 15 working days from the date such a change occurs. For each modification, the notification shall fully explain the following:
- (A) the nature of the modification;
- (B) the extent to which the ACP product formulation, VOC Content, LVP Content, or recommended usage directions will be changed;
- (C) the extent to which the ACP Emissions and ACP Limit specified in the Executive Order will be changed for the applicable compliance period; and
- (D) the effective date and corresponding date-codes for the modification.
- (b) Modifications That Require Executive Officer Pre-Approval: The responsible ACP party may propose modifications to the Enforceable Sales records or reconciliation of shortfalls plan specified in the Executive Order approving the ACP. Any such proposed modifications shall be fully described in writing and forwarded to the Executive Officer. The responsible ACP party shall clearly demonstrate that the proposed modifications will meet the requirements of this article. The Executive Officer shall act on the proposed modifications using the procedure set forth in section 94544. The responsible ACP party shall meet all applicable requirements of the existing ACP until such time as any proposed modification(s) is approved in writing by the Executive Officer.
- (c) Other Modifications: Except as otherwise provided in subsections (a) and (b) of this section, the responsible ACP party shall notify the Executive Officer, in writing, of any information learned of by the responsible ACP party which may alter any of the information submitted pursuant to the requirements of section 94543. The responsible ACP party shall provide such notification to the Executive Officer no later than 15 working days from the date such information is known to the responsible ACP party.

94550. Modification of an ACP by the Executive Officer

(a) If the Executive Officer determines that: (1) the Enforceable Sales for an ACP product are no longer at least 75.0% of the Gross California Sales for that product, or (2) the information submitted pursuant to the approval process set forth in section 94543 is no longer valid, or (3) the ACP Emissions are exceeding the ACP Limit specified in the Executive Order approving an ACP, then the Executive Officer shall

modify the ACP as necessary to ensure that the ACP meets all requirements of this article and that the ACP Emissions will not exceed the ACP Limit. The Executive Officer shall not modify the ACP without first affording the responsible ACP party an opportunity for a public hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the ACP should be modified.

(b) If any applicable VOC standards specified in sections 94509 or 94522 are modified by the Air Resources Board in a future rulemaking, the Executive Officer shall modify the ACP Limit specified in the Executive Order approving an ACP to reflect the modified VOC standards as of their effective dates.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94551. Cancellation of an ACP

- (a) An ACP shall remain in effect until:
 - (1) the ACP reaches the expiration date specified in the Executive Order;
 - (2) the ACP is modified by the responsible ACP party and approved by the Executive Officer, as provided in section 94549;
 - (3) the ACP is modified by the Executive Officer, as provided in section 94550;
 - (4) the ACP includes a product for which the VOC standard specified in sections 94509 or 94522 is modified by the Air Resources Board in a future rulemaking, and the responsible ACP party informs the Executive Officer in writing that the ACP will terminate on the effective date(s) of the modified standard;
 - (5) the ACP is cancelled pursuant to subsection (b) of this section.
- (b) The Executive Officer shall cancel an ACP if any of the following circumstances occur:
 - (1) the responsible ACP party demonstrates to the satisfaction of the Executive Officer that the continuation of the ACP will result in an extraordinary economic hardship;
 - the responsible ACP party violates the requirements of the approved ACP, and the violation(s) results in a shortfall that is 20.0% or more of the applicable ACP Limit (i.e., the ACP Emissions exceed the ACP Limit by 20.0% or more);

- the responsible ACP party fails to meet the requirements of section 94548 (Reconciliation of Shortfalls) within the time periods specified in section 94548.
- (4) the responsible ACP party has demonstrated a recurring pattern of violations and has consistently failed to take the necessary steps to correct those violations.
- (c) The Executive Officer shall not cancel an ACP pursuant to subsection (b) of this section without first affording the responsible ACP party an opportunity for a public hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the ACP should be cancelled.
- (d) The responsible ACP party for an ACP which is cancelled pursuant to this section and who does not have a valid ACP to immediately replace the cancelled ACP shall meet all of the following requirements:
 - (1) all remaining shortfalls in effect at the time of ACP cancellation shall be reconciled in accordance with the requirements of section 94548, and
 - (2) all ACP products subject to the ACP shall be in compliance with the applicable VOC standards in sections 94509 and 94522 immediately upon the effective date of ACP cancellation.
- (e) Any violations incurred pursuant to section 94546 shall not be cancelled or in any way affected by the subsequent cancellation or modification of an ACP pursuant to section 94549, 94550 or 94551.

94552. Treatment of Information

The information required by sections 94543 (a)(1)-(a)(2) and 94547(b)(9) is public information which may not be claimed as confidential. All other information submitted to the Executive Officer to meet the requirements of this article shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022.

94553. Other Applicable Requirements

- Unless otherwise specified in the Executive Order approving an ACP, all applicable requirements specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, (sections 94507-94517 and 94520-94528), shall remain in effect for all ACP products subject to an ACP.
- (b) All applicable requirements specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, (sections 94507-94517 and 94520-94528), shall remain in effect for all ACP products which are not subject to an ACP.
- (c) The provisions of this article notwithstanding, the requirements of the South Coast Air Quality Management District Rule 1174 shall remain in effect for all charcoal lighter material products sold, supplied, offered for sale, or manufactured for use in the South Coast Air Quality Management District (as defined in section 40410 of the Health and Safety Code).
- (d) The provisions of this article notwithstanding, the requirements of the Bay Area Air Quality Management District Rule 8-49 shall remain in effect for all aerosol coating products sold, supplied, offered for sale, applied, or manufactured for use in the Bay Area Air Quality Management District (as defined in section 40200 of the Health and Safety Code).
- (e) A responsible ACP party may transfer an ACP to another responsible ACP party, provided that all of the following conditions are met:
 - (1) The Executive Officer shall be notified, in writing, by both responsible ACP parties participating in the transfer of the ACP and its associated Executive Order. The written notifications shall be postmarked at least five (5) working days prior to the effective date of the transfer and shall be signed and submitted separately by both responsible parties. The written notifications shall clearly identify the contact persons, business names, mail and street addresses, and phone numbers of the responsible parties involved in the transfer.
 - (2) The responsible ACP party to which the ACP is being transferred shall provide a written declaration stating that the transferee shall fully

comply with all requirements of the Executive Order approving the ACP and this article.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94554. Federal Enforceability

For purposes of federal enforceability of this article, the Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under this article. Within 180 days of a request from a responsible ACP party whose ACP has been approved by the Executive Officer, an ACP meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to section 110 of the Clean Air Act, 42 U.S.C., section 7410.

Prior to submitting an ACP as a revision to the applicable implementation plan, the Executive Officer shall hold a public hearing on the proposed revision. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to the Environmental Protection Agency, every person who requests such notice, and to any person or group of persons whom the Executive Officer believes may be interested in the application. Within 30 days of the hearing the Executive Officer shall notify the applicant of the decision in writing as provided in section 94543(b). The decision may approve, disapprove, or modify an ACP previously granted pursuant to section 94543.

NOTE: Authority cited: Sections 39600, 39601, 39602 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94555. Federal Clean Air Act Requirements

- Unless otherwise determined by the U.S. Environmental Protection Agency, products sold, supplied, offered for sale, or manufactured for use in California under the requirements of an ACP are not subject to the requirements of Title V of the Federal Clean Air Act (42 U.S.C. sections 7661-7661f).
- (b) Nothing in this article shall be construed to modify or in any way affect any requirements of the federal Clean Air Act, including but not limited to Title V of the federal Clean Air Act, which are applicable to the construction or operation of the responsible ACP party's manufacturing facility or to any other activities of the responsible ACP party.

NOTE: Authority cited: Sections 39600, 39601, 39602 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code

HAIRSPRAY CREDIT PROGRAM REGULATION

HAIRSPRAY CREDIT PROGRAM REGULATION

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 5. Hairspray Credit Program

94560. Purpose

The purpose of this article is to provide a voluntary program, the Hairspray Credit Program, that rewards and provides an incentive for early compliance, and over compliance, with the second-tier hairspray standard of 55 percent volatile organic compounds (VOC) which is effective June 1, 1999, as specified in section 94509(a), Title 17, California Code of Regulations. The goal of the program is to benefit both the environment and the regulated entities. This program allows responsible parties for hairspray products to voluntarily generate surplus VOC emission reductions which may be certified by the Executive Officer as Hairspray Emission Reduction Credits (HERCs). HERCs may be used as an alternative method to comply with certain requirements of the California regulations for consumer products (sections 94500-94555, Title 17, California Code of Regulations).

This article is intended to ensure that all HERCs represent verified emission reductions that are real, permanent, quantifiable, enforceable, and surplus.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94561. Applicability

- (a) This article applies to the following:
 - (1) the calculation, certification, issuance, registration, transfer, use, retirement, and expiration of HERCs; and
 - (2) any person who applies for, is issued, holds, transfers, or uses HERCs.
- (b) Only a responsible party for a hairspray product may submit an application to request HERCs. Applications to use HERCs may be submitted only by responsible ACP (Alternative Control Plan) parties and responsible parties for antiperspirant and deodorant, aerosol coating products, and other consumer products that are subject to the VOC standards in sections 94500-94555, Title 17, California Code of Regulations.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94562. Definitions

For the purposes of this article, the following definitions shall apply in addition to the definitions set forth in sections 94501, 94508, 94521, and 94542, Title 17, California Code of Regulations:

- (a) "Air Quality Plan" includes, but is not limited to, attainment, rate-of-progress, and maintenance plans adopted by a California air pollution control or air quality management district (district) pursuant to State requirements specified in Chapter 10 (commencing with section 40910) of Part 3, Division 26 of the Health and Safety Code, and federal requirements specified in the Clean Air Act governing the State Implementation Plan.
- (b) "Applicable Hairspray Product" means a hairspray product listed in an application to request HERCs submitted pursuant to section 94563(b)(2)(B).
- (c) "Applicable Consumer Product" means an antiperspirant, deodorant, aerosol coating product, or other consumer product listed in an application to use HERCs submitted pursuant to section 94568(b)(2)(D).
- (d) "Credit Generation Period" means the period of time, in days, during which an applicable hairspray product will be manufactured that will generate surplus VOC emission reductions. The dates on which a specified credit generation period will begin and end must be in one of the following: (1) for early compliance, which may include over compliance, with the second-tier hairspray standard, the time period between January 1, 1998, and May 31, 1999, or (2) for over compliance with the second-tier hairspray standard on and after its effective date of June 1, 1999, the time period between June 1, 1999, and January 1, 2005. The credit generation period may be divided into installment periods for issuance of HERCs.
- (e) "Delayed Compliance Period" means the period of time, in days, during which a consumer product will be manufactured that does not comply with its applicable VOC limit in sections 94502, 94509, or 94522, Title 17, California Code of Regulations. The date on which a specified delayed compliance period will end must be on or prior to January 1, 2010.
- (f) "Documented Sales" means the total amount of the following products, as applicable, sold for use in California:
 - (1) For the Purpose of Credit Generation. The applicable hairspray product that was manufactured during the credit generation period as specified in an application submitted to the Executive Officer in accordance with section 94563, or
 - (2) For the Purpose of Credit Use. The applicable consumer product that was

manufactured during the following time periods:

- (A) the most recent twelve-month period (for which documented sales records are available) prior to the delayed compliance period as specified in the application submitted to the Executive Officer in accordance with section 94568, and
- (B) the delayed compliance period as specified in the application submitted to the Executive Officer in accordance with section 94568.

"Documented Sales" shall be determined through documented sales records (expressed to the nearest pound, excluding product container and packaging).

- (g) "Documented Sales Record" means a written, point-of-sale record, or any other Executive Officer-approved system of documentation, from which the mass, in pounds (less product container and packaging), of a product manufactured during an applicable time period and sold for use in California can be accurately documented. For the purposes of this article, "documented sales record" may include, but is not limited to, the following types of records:
 - (1) accurate records of direct retail or other outlet sales;
 - (2) accurate compilations made by independent market surveying services, using methods consistent with widely-accepted practices of the business, scientific, or regulatory communities, of direct retail or other outlet sales, provided that a detailed method which can be used to verify any data comprising such summaries is submitted by the responsible party and approved by the Executive Officer;
 - (3) accurate manufacturing records in combination with any other data or information that permits determination of California sales; or
 - (4) for pesticides only, accurate mill assessment records for economic poisons, verified by the California Department of Pesticide Regulations, which cover the sales of the pesticide product.
- (h) "Hairspray" means a consumer product designed primarily for the purpose of dispensing droplets of resin on and into a hair coiffure which will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time.
- (i) "Reformulated or Reformulation" means a change in the formulation of a hairspray product for the primary purpose of lowering the product's VOC content to 55 percent or less, as determined pursuant to section 94515, Title 17, California Code of Regulations.
- (j) "Responsible Party " means the company, firm or establishment which is listed

- on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was "manufactured for" or "distributed by", as noted on the label.
- (k) "State Implementation Plan" means the California State Implementation Plan approved by the United States Environmental Protection Agency (U.S. EPA), in accordance with requirements of the Clean Air Act.
- (I) "Stock Keeping Unit" means the classification used by consumer product manufacturers to identify products that have the same brand name, formulation, net weight, and other distinguishing characteristics.
- (m) "Surplus" means VOC emission reductions not required by any hairspray standard in section 94509, Title 17, California Code of Regulations; Alternative Control Plan approved pursuant to section 94543, Title 17, California Code of Regulations; or air quality plan. For the purposes of this article only, surplus emission reductions shall include emission reductions resulting from compliance with the second-tier hairspray standard of 55 percent VOC between January 1, 1998, and June 1, 1999. Surplus VOC emission reductions shall not include emission reductions occurring prior to January 1, 1998.
- (n) "VOC Content" shall have the same meaning in this article as it has in sections 94500-94555, Title 17, California Code of Regulations, as applicable.

94563. Application Process to Request Hairspray Emission Reduction Credits

- (a) A responsible party for a hairspray product who is requesting HERCs for a specified credit generation period must submit a written, two-part application to the Executive Officer. Any information in the custody of the California Air Resources Board that has been submitted as confidential by a responsible party (or by a person acting on behalf of the responsible party) pursuant to this section shall be handled by the Air Resources Board in accordance with the procedures specified in sections 91000-91022 (Disclosure of Public Records), Title 17, California Code of Regulations, provided that such information is clearly identified as being confidential.
- (b) Application Requirements: Part One. The first part of an application to request HERCs must be submitted in accordance with the following requirements:
 - (1) Timing of Application Submittal. For a hairspray product initially manufactured for sale in California on or after July 1, 1998, or a hairspray product reformulated after June 1, 1999, the first part of the application must be submitted before the start of the credit generation period, and no later than

- six months after the product's initial date of manufacture for sale in California. For all other hairspray products, the first part of the application must be submitted before the mid-point of the credit generation period;
- (2) Application Contents. The first part of the application must include the following information:
 - (A) the responsible party's company name, street and mailing address, telephone number, and designated contact person for the application;
 - (B) a list of the hairspray products for which the responsible party is requesting HERCs (i.e., the applicable hairspray products);
 - (C) a list of all stock keeping units for each applicable hairspray product, including any product identification numbers used by the responsible party to identify the stock keeping units;
 - (D) the credit generation period (in days) for which the responsible party is requesting HERCs for the applicable hairspray product, including the dates on which the credit generation period will begin and end (If the responsible party is requesting HERCs to be issued in more than one installment, the application must include the number of installments and the ending date of each installment period.);
 - (E) product labels for each stock keeping unit for each applicable hairspray product;
 - (F) speciated formulation data for the applicable hairspray product, and for the product prior to its reformulation, if applicable, (aggregated data may be submitted for the different stock keeping units) including percent by weight values to the nearest 0.1 percent for the following:
 - VOC content (for aggregated data, the applicant shall submit the highest VOC content or a sales-weighted average VOC content) and
 - 2. each compound present in the formulation, except compounds that amount to a combined concentration of one percent by weight;
 - (G) the approximate date on which sales in California began (or will begin) for each applicable hairspray product;
 - (H) the list of contact persons, telephone numbers, and street and mailing addresses of all persons and businesses who will provide information that will be used to determine documented sales for the applicable hairspray products;

- (I) a demonstration, which will be subject to Executive Officer approval, of the validity of the methodology that will be used to calculate documented sales, based on the documented sales records, that will be provided pursuant to section 94563(c)(2)(A);
- (J) for a hairspray product initially manufactured for sale in California on or after July 1, 1998, or a hairspray product reformulated after June 1, 1999, a statement that the hairspray product is formulated for the primary purpose of generating emission reductions for credits;
- (K) for a credit generation period greater than 365 days, a proposed schedule for the annual submittal of test results required pursuant to section 94563(c)(2)(B); and
- (L) a signed declaration as specified in section 94563(e).
- (c) Application Requirements: Part Two. The second part of an application to request HERCs must be submitted in accordance with the following requirements:
 - (1) *Timing of Application Submittal*. The second part of the application must be submitted after the conclusion of the credit generation period, and any installment period, if applicable.
 - (2) Application Contents. The second part of the application must include the following information for each applicable hairspray product:
 - (A) documented sales for the installment period or credit generation period, as applicable, and supporting documentation that shows how sales were calculated using documented sales records and a methodology previously approved by the Executive Officer;
 - (B) test results, using a method(s) specified in section 94515, Title 17, California Code of Regulations, that verify the VOC content information provided for the applicable hairspray product in the first part of the application; the units that were tested must come from three different batches that were manufactured during the credit generation period (If the credit generation period is greater than 365 days, such verification shall be performed at least annually and the test results submitted to the Executive Officer);
 - (C) the responsible party's own calculation of the quantity of HERCs for each applicable hairspray product for the credit generation period, or installment period, if applicable, calculated by using the protocol specified in section 94564; and

- (D) a signed declaration as specified in section 94563(e).
- (d) Applicable Time Periods and Procedures for Review and Approval of Application. The following time periods and procedures shall apply to the Executive Officer's review of Parts One and Two of the application:
 - (1) Application Completeness Determination. Within 30 days after receiving either a Part One or Part Two application submittal, the Executive Officer shall inform the applicant in writing that the submittal is complete, or that it is deficient and shall identify the specific information required to make the submittal complete.
 - (2) Application Completeness Determination After Receiving Additional Information. Within 15 days after receiving additional information submitted in response to a determination by the Executive Officer that Part One or Part Two of the application is deficient, the Executive Officer shall inform the applicant in writing, either that the new information is sufficient to make the application complete, or that the application is deficient and shall identify the specific information required to make it complete.
 - (3) Approval Determination for Part One of Application. Within 45 days after determining that Part One of the application is complete, the Executive Officer shall inform the applicant in writing whether the information provided in Part One is approved for the purposes of calculating HERCs in accordance with the protocol specified in section 94564. The Executive Officer's determination, through an Executive Order, shall include, but not be limited to the following:
 - (A) whether the VOC content for each applicable hairspray product is verified by the speciated formulation data submitted pursuant to section 94563(b)(2)(F), and
 - (B) whether the applicant's proposed methodology for calculating documented sales is approved.
 - (4) Approval Determination for Part Two of Application. Within 90 days of determining that Part Two of the application (or the information required by this part of the application for installment issuance of HERCs) is complete, the Executive Officer shall determine whether to issue and certify the HERCs in accordance with section 94565.
 - (5) Extension of Time Periods. For any of the time periods specified in this subsection (d), the Executive Officer and the applicant may agree to a longer time period for the Executive Officer to make a decision.

- (e) Declaration by Responsible Party. Parts One and Two of the application, and any additional information submitted, must include a declaration, signed by a legal representative of the responsible party, that the submittal contains true, accurate, and complete information based on information and belief formed after reasonable inquiry. Any person submitting information directly (i.e., the information is not reviewed by or submitted through the responsible party) to the Executive Officer on behalf of the responsible party must also make such a declaration.
- (f) Specified VOC Limit for a Hairspray Product in the Hairspray Credit Program. No applicable hairspray product manufactured during a credit generation period shall exceed the VOC content for the product specified in the Executive Order approving the application to request HERCs and issuing the HERCs.

94564. Protocol for Calculating Hairspray Emission Reduction Credits

(a) The following equation shall be used to calculate the quantity of HERCs generated for either early compliance or over compliance for an applicable hairspray product manufactured during a specified credit generation period (or installment period, if applicable) expressed to the nearest pound of surplus VOC emission reductions:

HERCs =

where,

(Documented Sales_{HCP})([VOC Content]_{Baseline} - [VOC Content]_{Hairspray})/100

"Documented Sales $_{\text{HCP}}$ " means the documented sales, in pounds, of the applicable hairspray product manufactured during the credit generation period (or installment period, if applicable) as specified in the application pursuant to section 94563(c)(2)(A).

"[VOC Content]Baseline" means the following:

For an applicable hairspray product initially offered for sale in California after January 1, 1993, the lower of the following:

(1) if the applicable hairspray product is a reformulated product, the VOC content, in percent, of the product before it was reformulated, as reported in the application and verified by the speciated formulation data required pursuant to section 94563(b)(2)(F), or

(2) 80 percent for a credit generation period between January 1, 1998, and May 31, 1999, and 55 percent for a credit generation period between June 1, 1999, and January 1, 2005.

For an applicable hairspray product initially offered for sale in California between October 11, 1990, and January 1, 1993: 80 percent for a credit generation period between January 1, 1998, and May 31, 1999, and 55 percent for a credit generation period between June 1, 1999, and January 1, 2005.

For an applicable hairspray product initially offered for sale in California before October 11, 1990, that has not been reformulated after October 11, 1990, the condition in section 94564(b)(5) shall apply.

"[VOC Content]_{Hairspray}" means the VOC content, in percent, of the applicable hairspray product as reported in the application and verified by the speciated formulation data required pursuant to section 94563(b)(2)(F).

- (b) For the purposes of the calculation protocol specified in section 94564(a), the following conditions shall apply:
 - (1) HERCs shall only be calculated if the Executive Officer has approved the methodology used to calculate documented sales in accordance with section 94563(d)(3)(B).
 - (2) HERCs shall only be calculated if the "[VOC Content]_{Hairspray}" reported in the application is verified by speciated formulation data and test results required pursuant to sections 94563(b)(2)(F) and 94563(c)(2)(B). If the test results do not verify the reported "[VOC Content]_{Hairspray}," the Executive Officer and the responsible party may agree to an alternative "[VOC Content]_{Hairspray}" provided it is supported by testing or demonstrations specified in section 94515, Title 17, California Code of Regulations.
 - (3) HERCs shall equal zero for any credit generation period after June 1, 1999, unless either of the following circumstances applies:
 - (A) the applicable hairspray product has generated surplus emission reductions prior to June 1, 1999, and the surplus emission reductions have been, or will be, certified by the Executive Officer as HERCs, or
 - (B) the applicable hairspray product was initially manufactured for sale in California, or reformulated, after June 1, 1999, in which case paragraph (4) of this subsection (b) shall apply.
 - (4) For an applicable hairspray product initially manufactured for sale in California on or after July 1, 1998, or reformulated after June 1, 1999, HERCs shall be

zero unless all of the following circumstances have occurred:

- (A) Pursuant to section 94563(b)(1), the responsible party has submitted to the Executive Officer an application to request HERCs before the start of the credit generation period, and no later than six months after the applicable hairspray product's initial date of manufacture for sale in California.
- (B) Pursuant to section 94563(b)(2)(J), the responsible party has provided a statement that the hairspray product is formulated for the primary purpose of generating emission reductions for credits.
- (C) For a reformulated hairspray product, the "[VOC Content]_{Baseline}" for the calculation of HERCs shall equal the product's lowest VOC content prior to its reformulation.
- (5) For an applicable hairspray product initially offered for sale in California before October 11, 1990, that has not been reformulated after October 11, 1990, HERCs shall be zero.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94565. Issuance of Hairspray Emission Reduction Credits

- (a) After evaluating an application to request HERCs in accordance with the requirements specified in section 94563, the Executive Officer shall determine whether HERCs should be issued to the responsible party. In addition, the Executive Officer shall issue and certify the HERCs only if the Executive Officer is satisfied that the application provides sufficient and verifiable information to assure that surplus emission reductions have been generated. The Executive Officer shall issue HERCs by means of an Executive Order that certifies the HERCs as follows:
 - (1) Each HERC has been calculated in accordance with the protocol specified in section 94564 and is otherwise in compliance with this article and any applicable federal requirements.
 - (2) Each HERC is for surplus emission reductions.
 - (3) Each HERC is expressed as a pound of surplus VOC emission reductions.
 - (4) Each HERC has been assigned an expiration date that is five years after the issuance date of the Executive Order or a January 1, 2005, expiration date, whichever is later, after which the ability to use the HERC ceases.

(b) On January 1, 2010, all outstanding HERCs shall expire, and may no longer be used.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94566. HERC Account Registry

- (a) The Executive Officer shall maintain a HERC Registry listing all HERCs held in HERC Accounts by each person. Each HERC Account will list information on the holder, quantities, credit generation periods and expiration dates of HERCs. The HERC Registry shall constitute the official and controlling record of all HERC holdings. HERCs shall not constitute instruments, securities, or any other form of property. Information contained in the HERC Registry shall be available to the public upon request, except that HERC Account information in the custody of the California Air Resources Board, and claimed as confidential by the responsible party, shall be handled by the Air Resources Board in accordance with the procedures specified in sections 91000-91022 (Disclosure of Public Records), Title 17, California Code of Regulations.
- (b) The Executive Officer shall modify the account information in the HERC Registry upon any of the following actions:
 - (1) the issuance of HERCs in accordance with section 94565;
 - (2) the transfer of HERCs to an existing or a newly created HERC Account in accordance with sections 94566(c) and 94566(d);
 - (3) the use of HERCs in accordance with sections 94567, 94570, and 94571;
 - (4) a credit or debit to a HERC Account to correct for differences between "Projected Excess Emissions" and "Actual Excess Emissions", including any additional amount of HERCs required pursuant to section 94567(h), in accordance with section 94571(c);
 - (5) a change of name, ownership, or other pertinent information for a HERC Account holder;
 - (6) a HERC Account holder's written request that HERCs be retired for an environmental benefit pursuant to section 94567(d); or
 - (7) the expiration of HERCs as required by sections 94565(a)(4) or 94565(b).
- (c) Any person may acquire HERCs through purchase, trade or other means of transfer from any HERC Account holder. The transfer of HERCs shall be effective only upon amendment of the HERC Registry by the Executive Officer.

- (d) Any person who requests a transfer of HERCs must provide the following information in writing to the Executive Officer:
 - the contact persons, names of the companies, street and mailing addresses, and telephone numbers of the parties involved in the transfer (For some transfers, the provider and recipient may be the same.);
 - (2) information on the HERCs to be transferred, including quantities, credit generation periods, and expiration dates;
 - (3) the date the transfer is proposed to become effective; and
 - (4) a statement, signed by both the provider and the recipient, that both parties fully understand the conditions and limitations of the HERCs being transferred and accept full responsibility for the appropriate use of the HERCs as provided in this article.

94567. Allowable Uses of Hairspray Emission Reduction Credits

Except as provided in subsections (f), (g), and (h) of this section, HERCs may be used as follows upon approval by the Executive Officer:

- (a) A responsible party for a consumer product regulated by the Air Resources Board pursuant to sections 94500-94528, Title 17, California Code of Regulations who is also a HERC Account holder may use HERCs to obtain additional time (i.e., a delayed compliance period) for a product to comply with an applicable VOC standard set forth in sections 94502, 94509 or 94522, Title 17, California Code of Regulations, provided the product has been manufactured for sale in California for at least 12 months before the submittal of an application in accordance with section 94568. During a delayed compliance period, the responsible party must comply with the following:
 - (1) the specified VOC content for the product reported in the HERC use application, and approved by the Executive Officer, instead of the applicable VOC standard specified in sections 94502, 94509, or 94522, Title 17, California Code of Regulations, and
 - (2) except as provided in paragraph (1) of this subsection (a), with all other applicable requirements specified in sections 94500-94528, Title 17, California Code of Regulations.
- (b) In accordance with section 94514(h), Title 17, California Code of Regulations, a

- responsible party for a hairspray product who is also a HERC Account holder may use HERCs to mitigate excess emissions that result from the granting of a variance.
- (c) In accordance with sections 94543(a)(7)(J) and 94548, Title 17, California Code of Regulations, a "responsible ACP party" who is also a HERC Account holder may use HERCs to reconcile any shortfalls occurring in a compliance period for an Alternative Control Plan.
- (d) Any person who is a HERC Account holder may retire HERCs to provide an environmental benefit.
- (e) For purposes of this article, high volatility organic compounds (HVOCs) and medium volatility organic compounds (MVOCs) in antiperspirants and deodorants shall be treated the same as other VOCs for HERC use.
- (f) The use of HERCs shall not result in any greater emissions of toxic air contaminants, as defined per Health and Safety Code section 39657(b), than would otherwise have occurred if HERCs were not used.
- (g) All outstanding HERCs shall expire on January 1, 2010, after which HERCs may no longer be used.
- (h) On or before December 31, 2002, the Executive Officer shall determine whether the Hairspray Credit Program has demonstrated an environmental benefit. For the purposes of this article, the Hairspray Credit Program has demonstrated an environmental benefit if, during the time period from the start of the program until December 31, 2002, the total amount of HERCs generated under the program is five percent greater than the total amount of HERCs used. If the Executive Officer determines that the Hairspray Credit Program has not demonstrated an environmental benefit by December 31, 2002, then all HERCs will be discounted by an amount of five percent upon use.

94568. Application Process for Use of Hairspray Emission Reduction Credits

(a) Any HERC Account holder who wishes to use HERCs as specified in sections 94567(a), 94567(b), or 94567(c) must submit a written application to the Executive Officer. Any information in the custody of the California Air Resources Board that has been submitted as confidential by a responsible party (or a person acting on behalf of the responsible party) pursuant to this section shall be handled by the Air Resources Board in accordance with the procedures specified in sections 91000-91022 (Disclosure of Public Records), Title 17, California Code of Regulations, provided that such information is clearly identified as being

confidential.

- (b) Application Requirements for HERC Use Pursuant to Section 94567(a). An application to use HERCs for a delayed compliance period pursuant to section 94567(a) must be submitted in accordance with the following requirements:
 - (1) *Timing of Application Submittal.* An application must be submitted and approved by the Executive Officer before the start of the proposed delayed compliance period.
 - (2) Application Contents. The application must contain all of the following information:
 - (A) the responsible party's company name, street and mailing address, telephone number, and designated contact person for the application;
 - (B) information on the HERCs to be used, including HERC Account Holder, quantities, credit generation periods, and expiration dates;
 - (C) the amount of excess emissions the HERCs will be used to offset (i.e., "Projected Excess Emissions" calculated using the protocol specified in section 94569);
 - (D) the list of the consumer products (i.e., applicable consumer products) for which the responsible party is requesting additional time to comply with the VOC standard identified in paragraph (E) of this subsection;
 - (E) the VOC standard specified in sections 94502, 94509, or 94522, Title 17, California Code of Regulations, for which the responsible party is requesting additional time to comply;
 - (F) the list of stock keeping units for each applicable consumer product, including any product identification numbers used by the responsible party to identify the stock keeping units;
 - (G) product labels for each stock keeping unit for each applicable consumer product;
 - (H) the responsible party's most recent speciated formulation data for each applicable consumer product (aggregated data may be submitted for the different stock keeping units) including percent by weight values to the nearest 0.1 percent for the following:
 - 1. VOC content (for aggregated data, the applicant shall submit the highest VOC content or a sales-weighted average VOC content) and

- 2. each compound present in the formulation, except compounds that amount to a combined concentration of one percent by weight or less;
- (I) documented sales for each applicable consumer product for the most recent twelve-month period (for which documented sales records are available) prior to the delayed compliance period, and supporting documentation that shows how sales were calculated using the documented sales records and a methodology which will be subject to Executive Officer approval pursuant to section 94568(b)(2)(K) and section 94570(a)(2);
- (J) the list of contact persons, telephone numbers, and street and mailing addresses of all persons and businesses who have provided, or will provide, information for the determination of documented sales for all the applicable consumer products;
- (K) a demonstration to the satisfaction of the Executive Officer of the validity of the methodology(ies) used, or to be used, to calculate documented sales pursuant to sections 94568(b)(2)(I), 94569, and 94571(b), based on the documented sales records provided by the responsible party or the contact persons listed in paragraph (J) of this subsection (b)(2);
- (L) test results, using a method(s) specified in sections 94506, 94515 or 94526, Title 17, California Code of Regulations, as applicable, that verify the VOC content information for the applicable consumer product as specified in paragraph (H) of this subsection (b)(2); the units that were tested must have come from three different batches that were manufactured less than one calendar year before the beginning of the proposed delayed compliance period;
- (M) the proposed delayed compliance period, in days, requested by the responsible party, including the dates on which the delayed compliance period would begin and end;
- (N) for a proposed delayed compliance period greater than 365 days, a proposed schedule for annual submittal of information on "Documented Sales_{Delayed Compliance Period}" and "Actual Excess Emissions" as defined in section 94569 and required pursuant to section 94571(b); and
- (O) a signed declaration as specified in section 94568(e).
- (c) Application Requirements for HERC Use Pursuant to Sections 94567(b) or 94567(c). For HERC use as specified in sections 94567(b) or 94567(c), an application must be submitted in accordance with the following requirements:

- (1) Timing of Application Submittal. The application must be submitted to and approved by the Executive Officer prior to the use of HERCs as specified in sections 94567(b) or 94567(c).
- (2) Application Contents. The application must contain all of the following information:
 - (A) the responsible party's company name, street and mailing address, telephone number, and designated contact person for the application;
 - (B) information on the HERCs to be used, including HERC Account Holder, quantities, credit generation periods, and expiration dates;
 - (C) the amount of excess emissions the HERCs will be used to offset; and
 - (D) a signed declaration as specified in section 94568(e).
- (d) Applicable Time Periods and Procedures for Review of HERC Use Applications. The following time periods and procedures shall apply to the Executive Officer's review of a HERC use application:
 - (1) Application Completeness Determination. Within 30 days after receiving an application, the Executive Officer shall inform the applicant in writing that the application is complete, or that the application is deficient and shall identify the specific information required to make the application complete.
 - (2) Application Completeness Determination After Receiving Additional Information. Within 15 days after receiving additional information provided in response to a determination by the Executive Officer that an application is deficient, the Executive Officer shall inform the applicant in writing, either that the new information is sufficient to make the application complete, or that the application is deficient and shall identify the specific information required to make the application complete.
 - (3) Approval Determination for Application. Within 90 days after determining that the HERC use application is complete, the Executive Officer shall determine whether to approve the use of HERCs.
 - (4) Extension of Time Periods. For any of the time periods specified in this subsection (d), the Executive Officer and the applicant may agree to a longer time period for the Executive Officer to make a decision.
- (e) Declaration by Responsible Party. The application, and any additional information submitted, must include a declaration, signed by a legal representative of the responsible party, that the submittal contains true,

accurate, and complete information based on information and belief formed after reasonable inquiry. Any person submitting information directly (i.e., the information is not reviewed or submitted through the responsible party) to the Executive Officer on behalf of the responsible party must also make such a declaration.

(f) Specified VOC Limit for a Consumer Product in the Hairspray Credit Program. No applicable consumer product manufactured during a delayed compliance period shall exceed the VOC content for that product specified in the Executive Order approving the application to use HERCs.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94569. Protocol for Calculation of Excess Emissions During a Delayed Compliance Period

The following equations shall be used to determine the amount of excess emissions from an applicable consumer product manufactured during a delayed compliance period (or a portion of a period, if applicable):

Projected Excess Emissions =

([VOC Content]_{Product} - [VOC Standard]_{Product})(Projected Sales)

Actual Excess Emissions =

([VOC Content]Product - [VOC Standard]Product)(Documented SalesDelayed Compliance Period)

where.

"Projected Excess Emissions" and "Actual Excess Emissions" shall be expressed to the nearest pound of VOC (if the product is an antiperspirant or deodorant, the nearest pound of HVOC or MVOC, as applicable).

"Projected Sales" shall be determined with the following equation:

Projected Sales =

(Delayed Compliance Period/365)(Documented Sales_{Previous Year})

where.

"Delayed Compliance Period" shall be expressed in days.

"Documented Sales_{Previous Year}" means the documented sales, in pounds,

Hairspray Credit Program Regulation (determined using methodology approved by the Executive Officer) for the applicable consumer product for the most recent twelve-month period (for which documented sales records are available) prior to the delayed compliance period, as reported in the HERC use application submitted in accordance with section 94568.

"[VOC Content]_{Product}" means the VOC content, in percent, of the applicable consumer product as reported in the HERC use application. (If the product is an antiperspirant or deodorant, the VOC Content shall be expressed as HVOC or MVOC, as applicable.)

"[VOC Standard]_{Product}" means the VOC standard, in percent, for the consumer product category as set forth by sections 94502, 94509 or 94522, Title 17, California Code of Regulations.

"Documented Sales_{Delayed Compliance Period}" means the documented sales, in pounds, (determined using methodology approved by the Executive Officer) for the applicable consumer product manufactured during the delayed compliance period, or a portion of the delayed compliance period, if applicable, as reported pursuant to section 94571(b).

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94570. Approval of Application for Use of Hairspray Emission Reduction Credits

The Executive Officer shall, by means of Executive Order, approve the use of HERCs only after making the following determinations:

- (a) For HERC use as specified in section 94567(a), the Executive Officer shall determine the following:
 - (1) "Projected Excess Emissions" have been calculated in accordance with the protocol specified in section 94569;
 - (2) the methodology(ies) used pursuant to sections 94568(b)(2)(I), 94569, and 94571(b) is appropriate for determining accurate documented sales information;
 - (3) the VOC content specified for the applicable consumer product, as reported in the application, has been verified by speciated formulation data submitted pursuant to section 94568(b)(2)(H) and test results in accordance with sections 94506, 94515 or 94526, Title 17, California Code of Regulations, as applicable; and

- (4) the use of HERCs is consistent with the State Implementation Plan and federal requirements;
- (b) For HERC use specified in sections 94567(a), 94567(b), and 94567(c), the Executive Officer shall determine that the responsible party's HERC account contains a sufficient quantity of HERCs to offset the projected excess emissions (which may consist of VOC, HVOC, or MVOC), to mitigate excess emissions that result from the granting of a variance, or to reconcile any shortfall occurring in a compliance period for an Alternative Control Plan, as applicable. The Executive Officer shall also determine if the responsible party's HERC account contains a sufficient quantity of HERCs to provide the additional amount of HERCs required pursuant to section 94567(h), if applicable.
- (c) For HERC use specified in sections 94567(a), 94567(b), and 94567(c), the Executive Officer shall determine that the use of HERCs will not result in any greater emissions of toxic air contaminants, as defined per Health and Safety Code section 39657(b), than would otherwise have occurred if HERCs were not used.

94571. Modification and Reconciliation of Account Balance for HERC Use

- (a) Modification of Account Balance After Approval of HERC Use. When an application for HERC use is approved, the Executive Officer shall modify the applicant's HERC account to remove the amount of HERCs necessary to offset the excess emissions, as specified in the application (e.g., for use pursuant to section 94567(a), "Projected Excess Emissions" calculated pursuant to section 94569) and, if applicable, to provide the additional amount of HERCs required pursuant to section 94567(h).
- (b) Requirement to Submit Information on Documented Sales and Actual Excess Emissions. For HERC use pursuant to section 94567(a) only, the responsible party (i.e, the applicant for HERC use or the HERC Account holder) must submit to the Executive Officer, within 120 days after the conclusion of the delayed compliance period, documented sales for the delayed compliance period and "Actual Excess Emissions" calculated in accordance with section 94569. For a delayed compliance period of more than 365 days, information on documented sales and actual excess emissions must be submitted annually in accordance with the time schedule specified in the Executive Order approving the application to use HERCs.

- (c) Correction of Account Balance. The Executive Officer shall debit or credit the HERC Account accordingly to correct for any difference between the "Projected Excess Emissions" and the "Actual Excess Emissions" during the delayed compliance period (or portion of the period, if applicable), including any additional amount of HERCs required pursuant to section 94567(h), based on the documented sales information submitted in accordance with section 94571(b).
- (d) Reconciliation of Negative Balance. If correction of the HERC Account pursuant to section 94571(c) results in an overall negative balance in the HERC Account, the responsible party must completely reconcile the negative balance within 180 days of the conclusion of the delayed compliance period (or portion of the period, if applicable) or within the time period specified in the Executive Order.

94572. Recordkeeping and Availability of Requested Information

- (a) All information specified in the Executive Order approving an application to request HERCs or an application to use HERCs must be maintained by the responsible party for a minimum of five years after the approval date of the Executive Order, or the date such records are generated, whichever is later.
- (b) The records specified in subsection (a) of this section shall be made available to the Executive Officer or his or her authorized representative within the following time periods:
 - (1) immediately upon request, during an on-site visit to the responsible party for a product participating in the Hairspray Credit Program,
 - (2) within 7 days after receipt of a written request from the Executive Officer, or
 - (3) within a time period agreed upon by both the Executive Officer and the responsible party.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94573. Violations

(a) Violations in General. Any person who commits a violation of this article is

subject to the penalties specified in Health and Safety Code section 42400 et seq. Failure to meet any requirement of this article or any condition of an applicable Executive Order shall constitute a single, separate violation of this article for each day until such requirement or condition is satisfied, except as otherwise provided in subsections (b), (c), (d), (e) and (f) of this section.

- (b) Exceedances of Specified VOC Content. Any exceedance during the applicable compliance period of the VOC content specified for a hairspray product or other consumer product in the Executive Order approving (1) Part Two of an application to request HERCs pursuant to section 94563 or (2) an application to use HERCs pursuant to section 94568 shall constitute a single, separate violation of the requirements of this article for each product unit manufactured during the applicable compliance period for sale in California which exceeds the specified VOC content.
- (c) False Reporting of Information.
 - (1) False reporting of any information contained in an application to request HERCs pursuant to section 94563, or in any supporting documentation or amendments to an application, shall constitute a single, separate violation of the requirements of this article for each day of the credit generation period for the HERCs.
 - (2) False reporting of any information contained in an application to use HERCs pursuant to section 94568, or in any supporting documentation or amendments to an application, shall constitute a single, separate violation of the requirements of this article for each day during the time period in which the HERCs are to be used.
 - (3) False reporting of any information submitted to satisfy the requirements of section 94571(b) for documented sales information during a delayed compliance period shall constitute a single, separate violation of the requirements of this article for each day of the delayed compliance period.
- (d) Failure to Meet Applicable Deadlines. Any of the following actions shall each constitute a single, separate violation of the requirements of this article for each day after the applicable deadline until the requirement is satisfied:
 - (1) Failure to submit accurate documented sales for a delayed compliance period (or a portion of the period, if applicable) within 120 days after conclusion of this period, as specified in section 94571(b), or within the time schedule specified in the

Executive Order approving the application to use HERCs.

- (2) Failure to completely reconcile a negative balance for a HERC account within 180 days after the conclusion of the applicable delayed compliance period (or portion of the period, if applicable) as specified in section 94571(d), or within the time schedule specified in the Executive Order approving the application to use HERCs.
- (e) Negative Balances in HERC Accounts at End of Delayed Compliance Period. Except as provided in subsection (f) of this section, any overall negative balance that occurs in a HERC Account after the Executive Officer has made the correction specified in section 94571(c) for the difference between "Projected Excess Emissions" and "Actual Excess Emissions" at the end of a delayed compliance period (or portion of the period, if applicable) shall constitute a single, separate violation of the requirements of this article for each day of the delayed compliance period, or portion of the period.
- (f) Number of Violations Resulting from Negative Balances. If a violation specified in subsection (e) of this section occurs, the responsible party may, pursuant to this subsection (f), establish a number of violations less than that set forth in subsection (e) as calculated according to the following equation:

Number of Violations = Days_{Delayed} - Days_{Covered}

where,

"DaysDelayed" means the number of days in the delayed compliance period (or portion of the period, if applicable)

"DaysCovered" means the number of days in the delayed compliance period (or portion of the period, if applicable) for which there are sufficient HERCs to offset excess emissions as calculated using the following equation:

Days_{Covered} =

(HERCs_{Provided} + HERCs_{Correction})(Days_{Delayed}/Actual Excess Emissions)

where,

"HERCs_{Provided}" means the amount of HERCs, expressed as pounds, removed from the applicant's HERC Account upon approval of a HERC use application pursuant to section 94571(a);

"HERCs_{Correction}" means the amount of HERCs, expressed as pounds,

removed from the applicant's HERC Account to correct for a difference in "Projected Excess Emissions" and "Actual Excess Emissions" pursuant to section 94571(c); and

"Actual Excess Emissions" means the amount of excess emissions, expressed as pounds, from a consumer product manufactured during a delayed compliance period (or portion of the period, if applicable) as calculated pursuant to section 94569 and reported by the responsible party pursuant to section 94571(b).

The responsible party may determine the number of violations pursuant to this subsection (f) only if it has provided all required information for the applicable delayed compliance period (or portion of the period, if applicable) as specified in the Executive Order approving the HERC use. By choosing this option, the responsible party waives any and all legal objections to the calculation of the number of violations pursuant to this subsection (f).

- (g) Assessment of Penalties. In assessing the amount of penalties for any violation occurring pursuant to subsections (a)-(f) of this section, the circumstances identified in Health and Safety Code section 42403(b) shall be taken into consideration.
- (h) Statute of Limitations. Any limitation of time applicable to actions brought pursuant to this article shall be deemed to accrue on the date(s) when the records establishing a violation are received by the Executive Officer.
- (i) Liability of Responsible Parties and HERC Account Holders. A responsible party or HERC Account holder is fully liable for compliance with the requirements of this article, even if the responsible party or HERC account holder contracts with or otherwise relies on another person to carry out some or all of the requirements of this article.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41712, 42400-42403 and 42404.5, Health and Safety Code; and section 338(k), Code of Civil Procedure.

94574. Federal Enforceability

For purposes of federal enforceability of this article, the United States Environmental Protection Agency (U.S. EPA) is not subject to approval determinations made by the Executive Officer under this article. Within 180 days of a request from a responsible party who has received approval of an application to use HERCs, a HERC use approval meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the U.S. EPA for inclusion in the applicable implementation plan approved or promulgated by the

U.S. EPA pursuant to section 110 of the Clean Air Act, 42 U.S.C., section 7410. Prior to submitting a HERC use approval as a revision to the applicable implementation plan, the Executive Officer shall hold a public hearing on the revision. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to the U.S. EPA, every person who requests such notice, and any person or group of persons whom the Executive Officer believes may be interested in the application. Within 30 days of the hearing, the Executive Officer shall notify the applicant of the decision in writing. The decision may approve, disapprove, or modify a HERC use approval previously granted pursuant to section 94568.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.

94575. Program Evaluation

On an ongoing basis the Executive Officer shall evaluate the implementation of the Hairspray Credit Program, and track program results in terms of both actual emission reductions, and, to the extent practicable, cost savings relative to traditional regulatory programs. This program evaluation shall include an annual analysis of credit generation and use activities, and a description of any significant problems in the implementation of the program.

At least once every three years, the Executive Officer shall provide to the United States Environmental Protection Agency (U.S. EPA) a report on the program evaluation, including a comparison of credit generation and use activities for the previous three years, an assessment of the benefit to the environment which has resulted from the program, and a description of any significant problems that have occurred.

NOTE: Authority cited: Sections 39600, 39601 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000 and 41712, Health and Safety Code.